

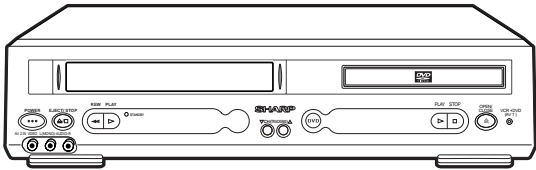
SHARP SERVICE MANUAL

S01B9DV-NC55S

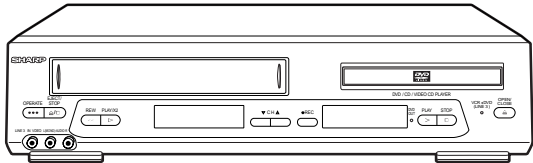
SERVICE MANUAL

VCR/DVD COMBINATION MODEL

MODELS DV-NC55S/H/60H



DV-NC55S/H



DV-NC60H



VCR/DVD COMBINATION MODEL

MODELS DV-NC55S DV-NC55H DV-NC60H

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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1. IMPORTANT SERVICE NOTES

Note:

This unit can be used only where the power supply is AC 230V-240V, 50Hz. It cannot be used elsewhere.

CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT STARE INTO THE LASER BEAM OR VIEW WITH OPTICAL INSTRUMENT.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

Laser Diode Properties

Material: AlGaInP

Wave length: 650 nm

Emission Duration: Continuous

Laser output: Max. 0.7 mW

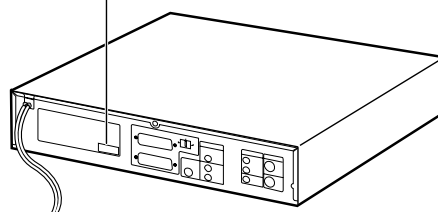
Power Lead Protection

To avoid any malfunctions of the unit, and to protect against electric shock, fire or personal injury, please observe the following.

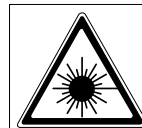
- Hold the plug firmly when connecting or disconnecting the AC power lead.
- Keep the AC power lead away from heating appliances.
- Never put any heavy object on the AC power lead.
- Do not attempt to repair or reconstruct the AC power lead in any way.

- This Unit is classified as a CLASS 1 LASER product.
- The CLASS 1 LASER PRODUCT label is located on the rear cover.
- This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

CLASS 1
LASER PRODUCT



(Rear of product)



CAUTION-WHEN OPEN, DO NOT STARE INTO BEAM
OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

VARNING-NÄR DENNA DEL ÄR ÖPPNAD, STIRRA EJ IN I STRÅLEN
OCH BETRÄKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.

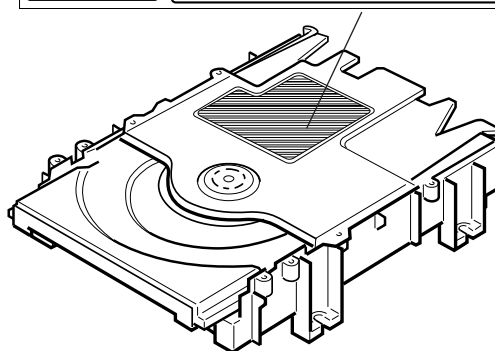
ADVARSEL-VED ÅBNING, SE IKKE IND I
STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIIN, ÄLÄ TUIJOTA
SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING-NÄR DENNA DEL ÄR ÖPPNAD, STIRRA EJ IN I STRÅLEN
OCH BETRÄKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

ADVARSEL-NÄR DEKSEL ÅPNES, STIRR IKKE INN I STRÅLEN
ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

ここを開くとレーザー光が出ます。
レーザー光をのぞき込まないでください。
光学機器で直接ビームを見ないでください。



VARO! AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE.

ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING - LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD.


STIRRA EJ IN STRÅLEN OCH BETRÄKTA EJ STRÅLEN GENOM OPTISKT
INSTRUMENT.

2. FEATURES

■ Common Features

- A DVD, AUDIO CD player and VCR all in one.
- Simultaneous VCR recording and DVD playback.

■ VCR

-  Hi-Fi Stereo Sound/Double-Azimuth 4-Heads
- 1 minute Rewind (E-180)
- S-VHS Simple Playback
- HQ (High Quality) Circuitry
- Simple Recording Timer
- Sharp Super Picture

■ DVD

- Plays DVD and Audio CD discs as well as CD-R/CD-RW discs recorded in MP3 file format
- Virtual Dolby Surround (QSURROUND*¹) provides high-quality surround sound
- Digital Gamma correction and Digital Super Picture functions
- Dolby Digital*², DTS*³, MPEG Audio digital out capability
- High-quality digital images
- High-quality digital sound

*¹ QSURROUND™ is a trademark of QSound Labs, Inc.

*² Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

*³ "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

3. SPECIFICATIONS

Signal System: PAL

INPUT/OUTPUT JACKS

DVD/VCR shared output jacks: VIDEO jack: RCA Pin-jack
AUDIO jack: RCA Pin-jack

DVD output jacks: VIDEO jack: S-Video jack
AUDIO jack: RCA Pin-jack
DIGITAL AUDIO IF: Coaxial digital
AUDIO output jack: RCA Pin-jack

VIDEO input jacks: VIDEO jack: SCART
AUDIO jack: SCART

VCR

Video Recording System: Rotary Two-Head Helical Scanning
Number of Video Heads: 4
Video Signal Standard: NTSC Colour System
Audio Recording System: 1 Stationary Head for Linear Audio
2 Rotary Heads for Hi-Fi stereo

Tape Width: 12.7 mm

Tape Speed (PAL): (SP) 23.39 mm/sec
(LP) 11.70 mm/sec
(EP) 7.80 mm/sec

(NTSC) (SP) 33.35 mm/sec (Playback only)
(LP) 16.67 mm/sec (Playback only)
(EP) 11.12 mm/sec (Playback only)

Recording/Playback Time: (SP) 240 min (With E-240 Cassette)
(LP) 480 min (With E-240 Cassette)
(EP) 720 min (With E-240 Cassette)
Channel Coverage: UHF E21-E69
Antenna Input: 75Ω
Video Input: Input level: 0.5 to 2.0 Vp-p (75Ω)
Video Output: Output level: 1.0 Vp-p (75Ω)
Audio Output: Output level: -3.8 dBs (47kΩ)
(0 dBs = 0.775 Vrms)
Audio Output: Output level: -8 dBs (1kΩ)
(0 dBs = 0.775 Vrms)
Hi-Fi Audio: Dynamic Range: 90 dB
Frequency Response: 20 Hz-20 kHz
Memory Backup: 60 seconds (55H/60H)
60 minutes (60S)

DVD

DVD/VCR shared Video output: Output level: 1 Vp-p (75Ω)
S video output: Y output level: 1 Vp-p (75Ω)
C output level: 0.286 Vp-p (75Ω)
Audio output: Output level: 2 Vrms (1 kHz, 0 dB)
Video signal horizontal resolution: 500 lines
S/N ratio: 60 dB
Audio signal frequency characteristics: For DVD linear PCM playback:
4 Hz to 22 kHz (48 kHz sampling)
4 Hz to 44 kHz (96 kHz sampling)
CD playback: 4 Hz to 20 kHz (JEITA)
S/N ratio: CD: 100 dB, 1 kHz (EIAJ)
Dynamic range: DVD linear PCM: 96 dB (JEITA)
CD: 96 dB (JEITA)
Total harmonic distortion ratio: CD: 0.006% (JEITA)
Pickup: Wave length: 650 nm (DVD) / 780 nm (CD)
Laser output: Max. 0.7 mW

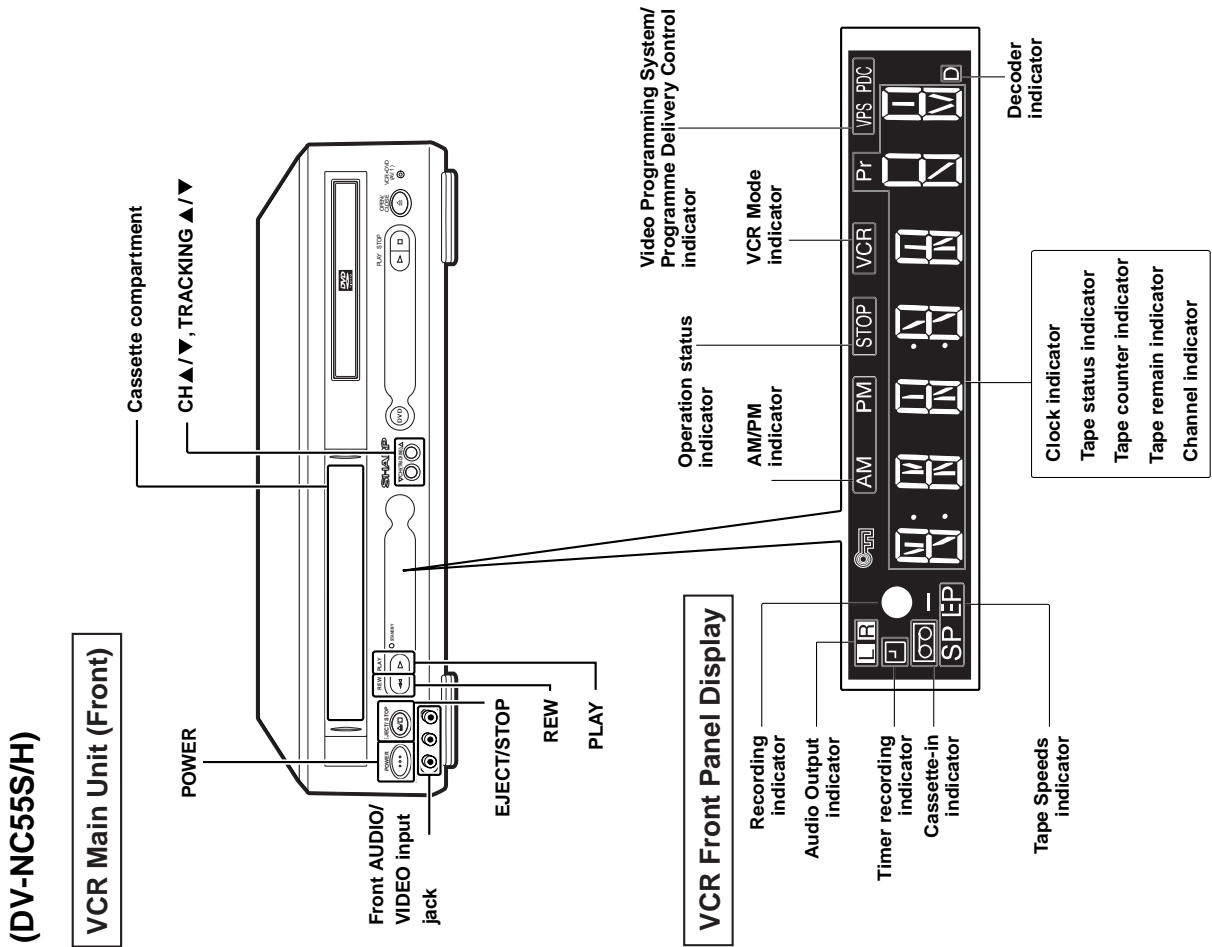
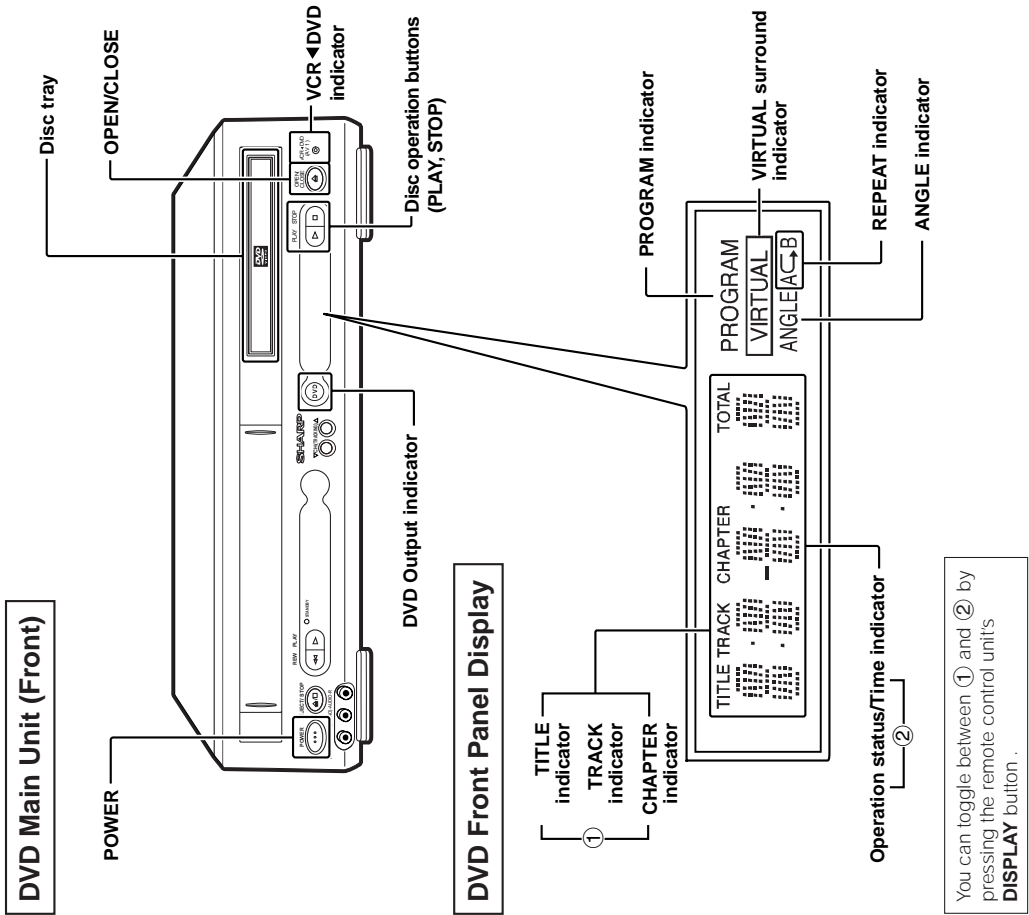
Operating temperature: 5°C to 35°C (41°F to 95°F)
Storage temperature: -20°C to 55°C (-4°F to 131°F)
Power supply: 230V-240V AC, 50 Hz
Power consumption: 29 W
Dimensions: 430 mm × 99 mm × 363 mm (W × H × D)
Weight: 6.3 kg

Specifications are subject to change without notice.
Weight and dimensions are approximate.

3-1. ACCESSORIES

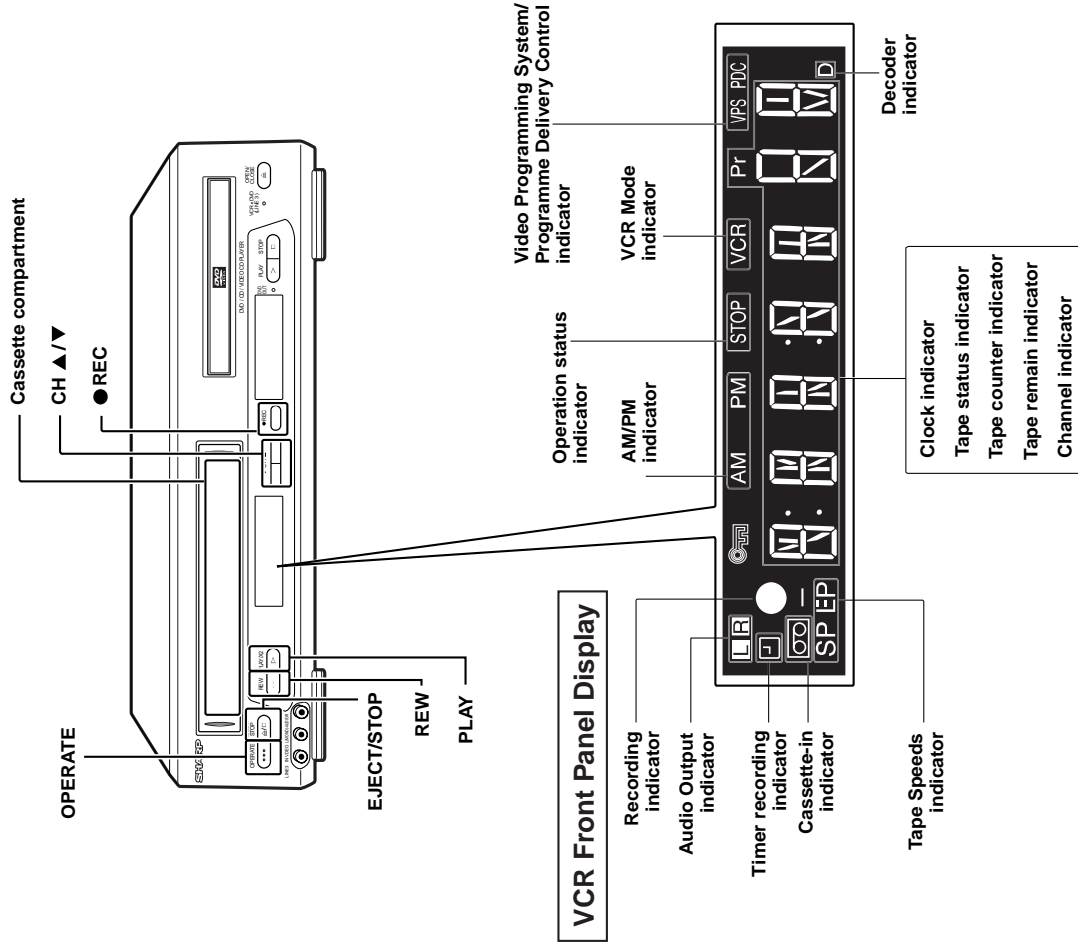
Accessories: Remote Control Unit x 1, Battery x 2, 21Pin Cable x 1, RF Cable x 1,
Operation Manual x 1, Quick Start Guide x 1

4. PART NAMES

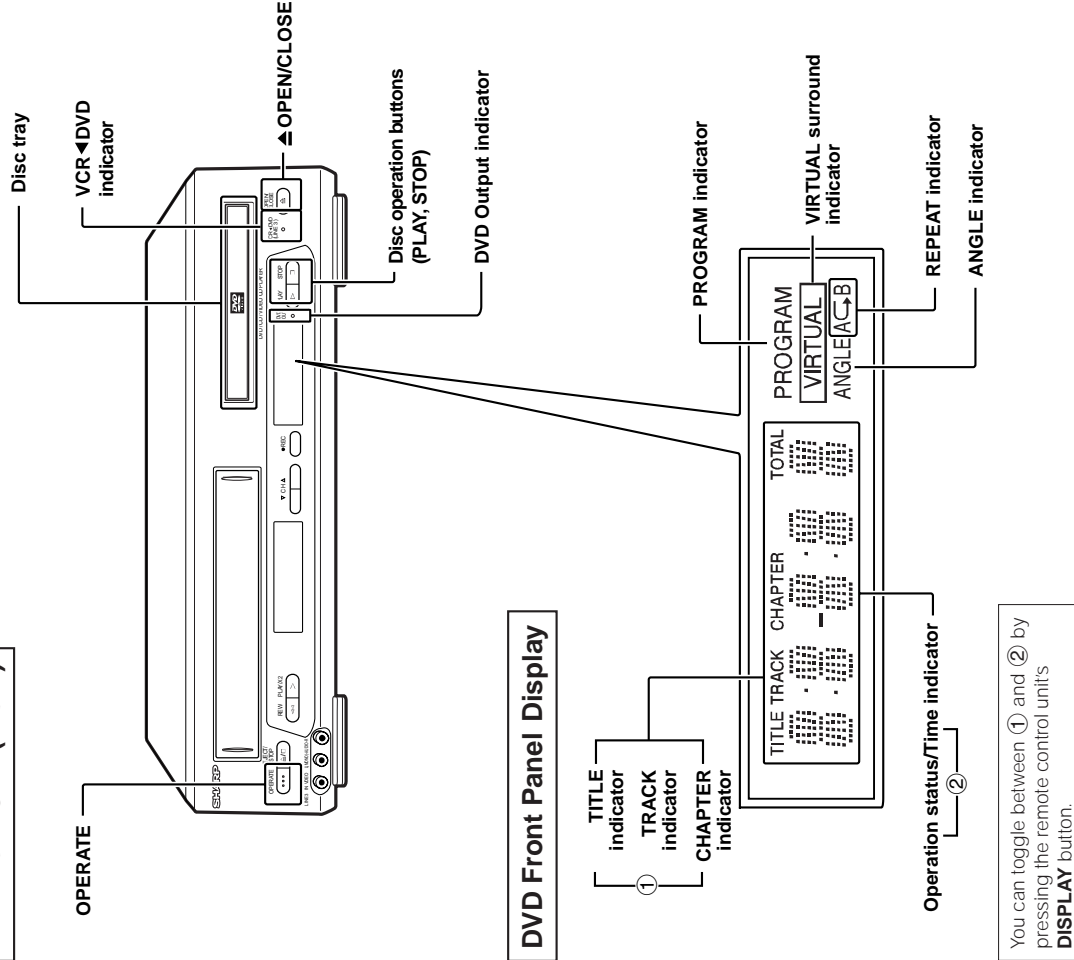


(DV-NC60H)

VCR Main Unit (Front)

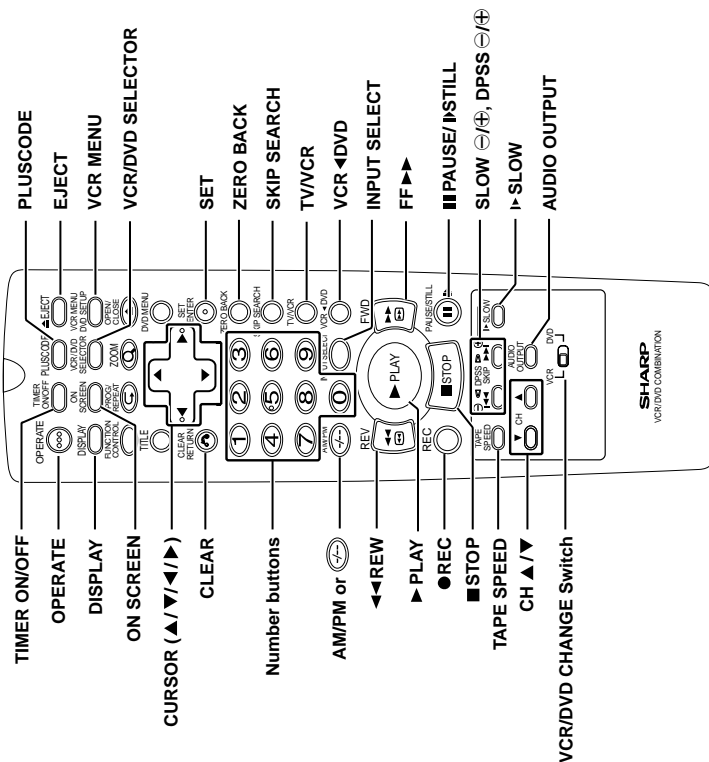


DVD Main Unit (Front)



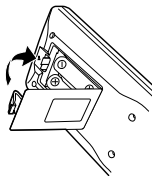
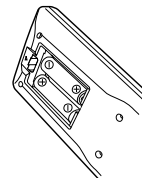
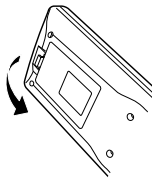
Remote (VCR Operation Buttons)

- The explanations on this page use the VCR/DVD CHANGE Switch in the VCR position.



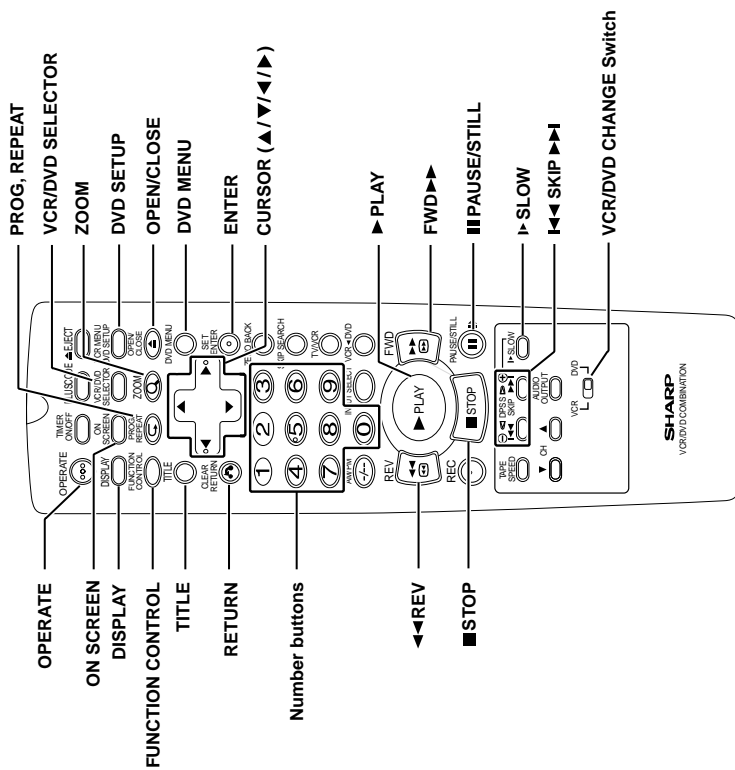
Loading the Batteries

- Open the battery cover by pulling the lid in the direction of the arrow.
- Load the batteries. Load the two batteries (R6 UM/SUM-3 or AA) supplied with the Remote so that the battery poles + and - are positioned as indicated.
- Close the battery cover by lowering the lid in the direction of the arrow.



Remote (DVD Operation Buttons)

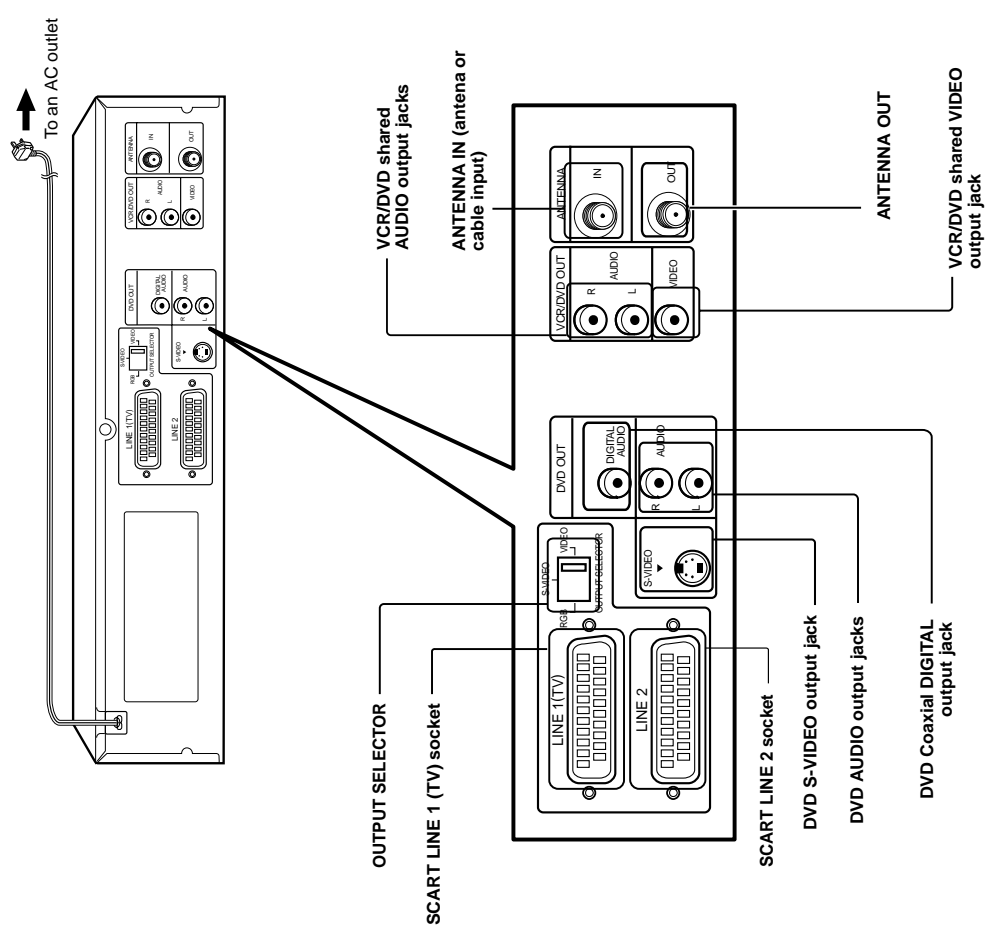
- The explanations on this page use the VCR/DVD CHANGE Switch in the DVD position.



NOTE

- Do not subject the Remote to shock, water or excessive humidity.
- The Remote may not function if the Unit sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if you do not use the Remote for an extended period of time.

Main Unit (Rear)



5. MAINTENANCE CHECK ITEMS AND EXECUTION TIME

MECHANICAL PARTS REQUIRING PERIODICAL INSPECTION

Use the following table as a guide to maintain the mechanical parts in good operating condition.

Parts	Maintained	1,000 hrs.	2,000 hrs.
Pickup		○	○
Spindle Unit		□	○
Sled Motor			○
Loading Motor			○
Belt		□	○

Note

○ : Part Replacement

□ : Cleaning

(For cleaning, use a lint-free cloth dampened with pure isopropyl alcohol.)

CARES WHEN USING THE PICKUP

1. The laser light having wavelength 650 nm is emitted from the objective lens. BE CAREFUL SO THAT THE LASER LIGHT DOES NOT ENTER DIRECTLY INTO YOUR EYE.
2. The semiconductor laser may be easily damaged by electrostatic charges. When handling the pickup, take care so that the electrostatic charge is not generated.
3. The semiconductor laser may be easily damaged by overcurrent. Use the power supply unit which does not give any spike current when the power is turned on and off.
4. Carefully remove the dust and dirt from the objective lens with the lens blower.
When handling the objective lens, take due care so that it is not contaminated with fingerprint, etc. If the objective lens is contaminated, impregnate the cleaning paper with a small quantity of solvent (isopropyl alcohol), and gently wipe to clean.
5. The ozone layer depleting components (ODC) are not used in the production process for the product.

6. DISASSEMBLY METHOD

6-1. DISASSEMBLY METHOD

1) Removing the cabinet.

- (1) Remove the seven screws ① and ②.

2) Removing the rear panel.

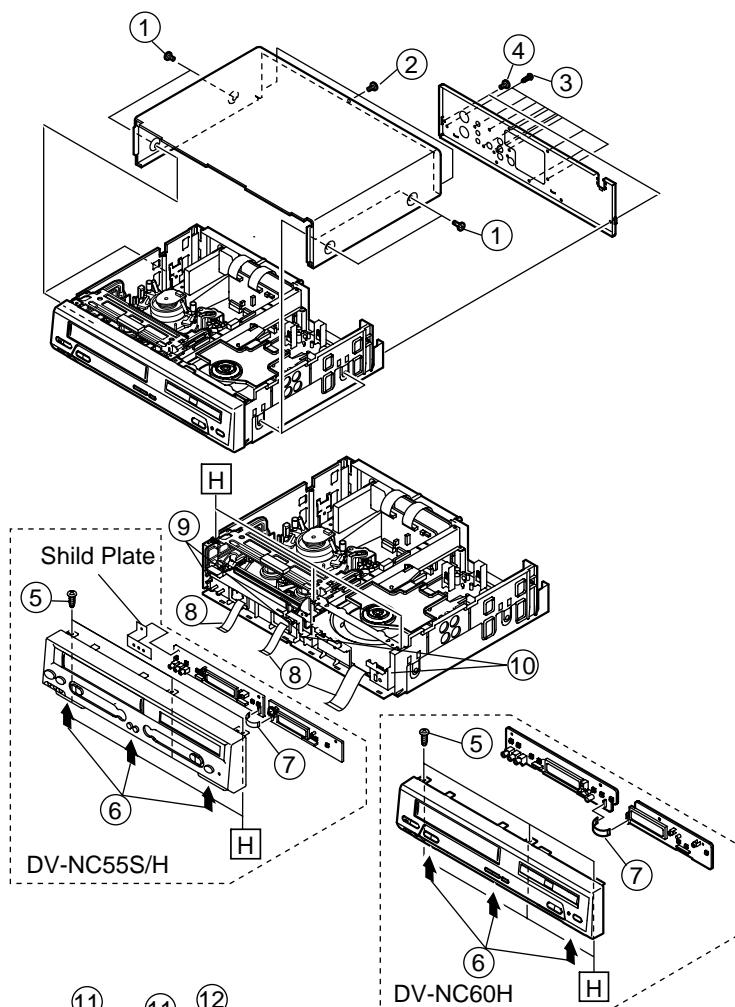
- (1) Remove the ten screws ③.
- (2) Remove the three screws ④.

3) Removing the front panel.

- (1) Remove the three screws ⑤.
- (2) Remove the three hooks ⑥.

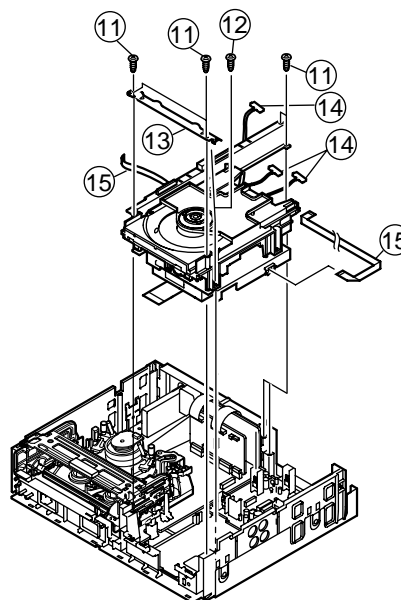
4) Removing the front PWB.

- (1) Remove the four FFCs ⑦ and ⑧.
- (2) Release the two hooks ⑨ and tilt the PWB toward you to remove it.
- (3) Release the two hooks ⑩ and tilt the PWB toward you to remove it.

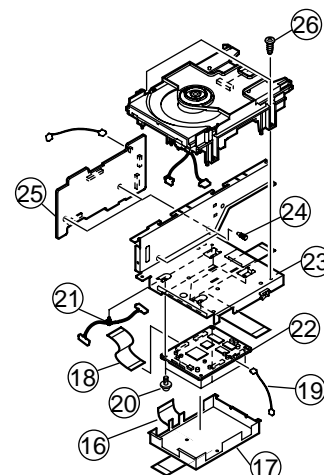


5) Removing the DVD mechanism.

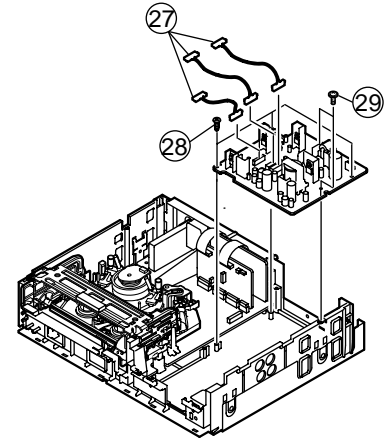
- (1) Remove the four screws ⑪.
- (2) Remove the two screws ⑫.
- (3) Remove the DVD REINF. angle ⑬.
- (4) Remove the three connectors ⑭.
- (5) Remove the two FFCs ⑮.



- (6) Remove the FFC ⑯.
- (7) Remove the shield (lower) ⑰.
- (8) Remove the FFC ⑱, and at connector ⑲, and at four screws ⑳.
- (9) Remove the wire from the wire holder ㉑.
- (10) Remove the DVD main PWB ㉒.
- (11) Remove the FFC cover ㉓.
- (12) Remove the two interface PWB holders ㉔, and remove the interface PWB ㉕.
- (13) Remove the two screws ㉖.

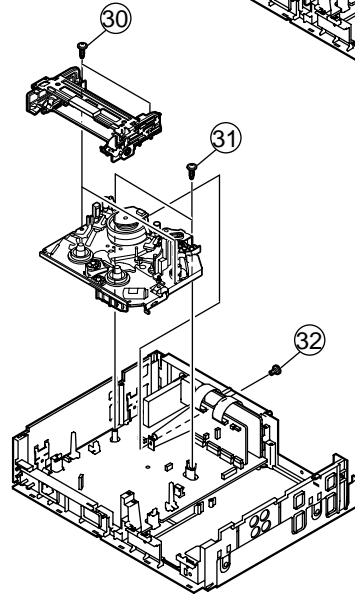


- (14) Remove the connectors ②⑦.
- (15) Remove the five screws ②⑧ and ②⑨.



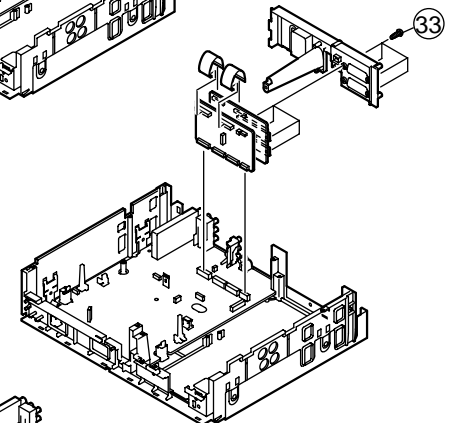
6) Removing the cassette housing control/VCR mechanism.

- (1) Remove the two screws ③⑩.
- (2) Remove the two screws ③⑪.
- (3) Remove the one screw ③⑫.



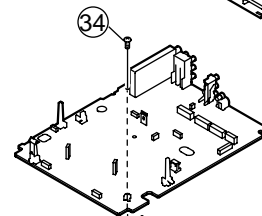
7) Removing the terminal plate.

- (1) Remove the four screws ③⑬.



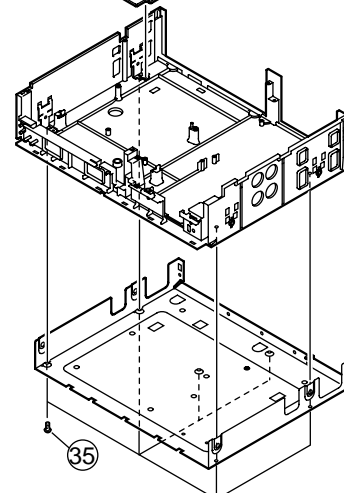
8) Removing the VCR main PWB.

- (1) Remove the one screw ③⑭.



9) Removing the bottom plate.

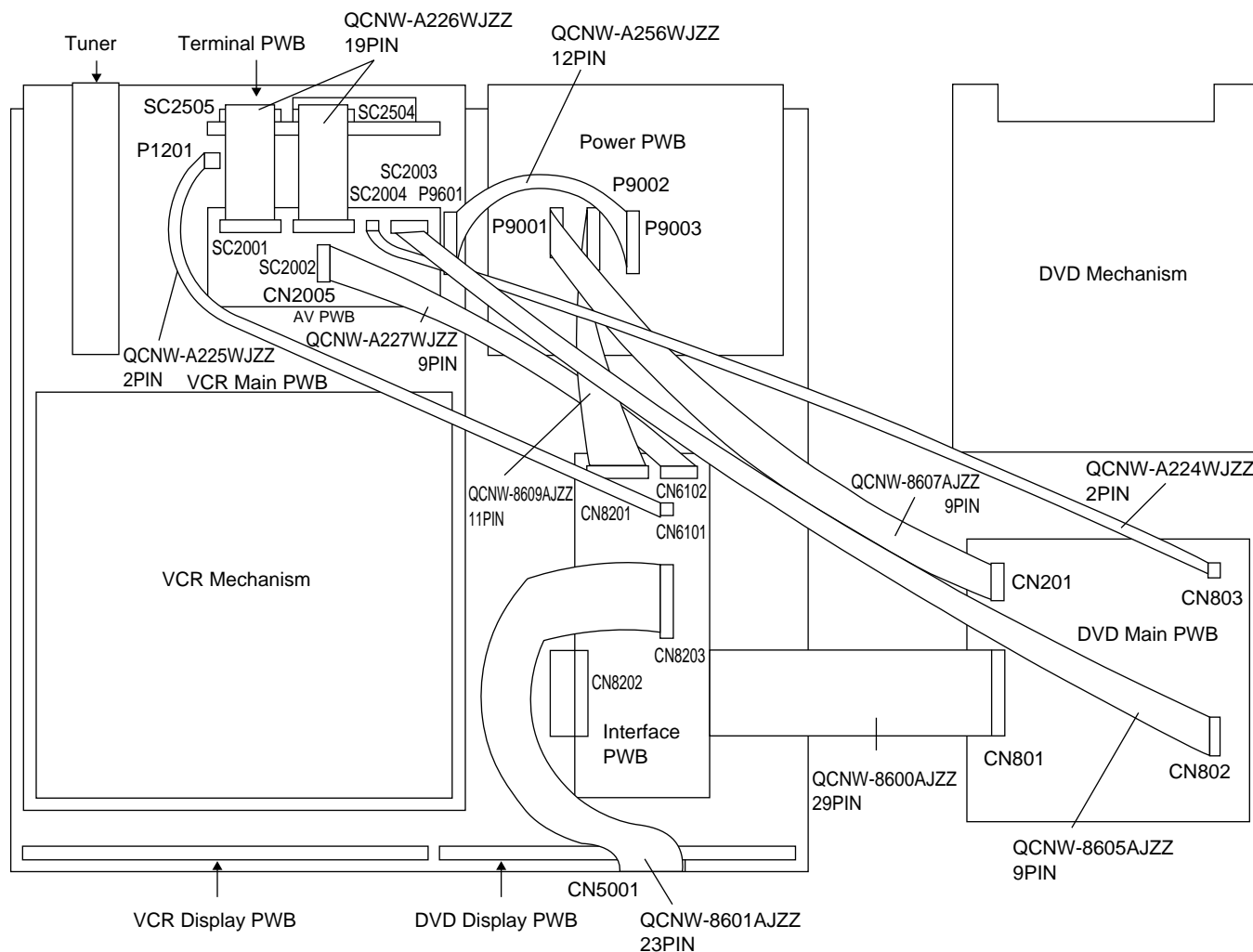
- (1) Remove the six screws ③⑮.



6-2. EXTENSION CABLE USE POINT (FOUR PLACES)

Parts Code	Price Code	Name/Description
QCNW-8600AJZZ	AD	Extension cable (FFC), 29pin DVD main CN801–INTERFACE CN8202
QCNW-8601AJZZ	AE	Extension cable (FFC), 23pin INTERFACE CN8203–DVD display CN5001
QCNW-8605AJZZ	AE	Extension cable (FFC), 9pin DVD main CN802–AV SC2003
QCNW-8607AJZZ	AG	Extension cable(wire), 9pin DVD main CN201– POWER P9001
QCNW-8609AJZZ	AF	Extension cable(wire), 11pin INTERFACE CN8201– POWER P9002
QCNW-A224WJZZ	AE	Extension cable(shield wire), 2pin DVD main CN803– AV SC2004
QCNW-A225WJZZ	AD	Extension cable(shield wire), 2pin VCR main P1201– INTERFACE CN6101
QCNW-A227WJZZ	AC	Extension cable(FFC), 9pin INTERFACE CN6102– AV CN2005
QCNW-A256WJZZ	AH	Extension cable(wire), 12pin VCR main P9601– POWER P9003
QCNW-A226WJZZ	AB	Extension cable(FFC), 19pin AV SC2001– TERMINAL SC2505 AV SC2002– TERMINAL SC2504

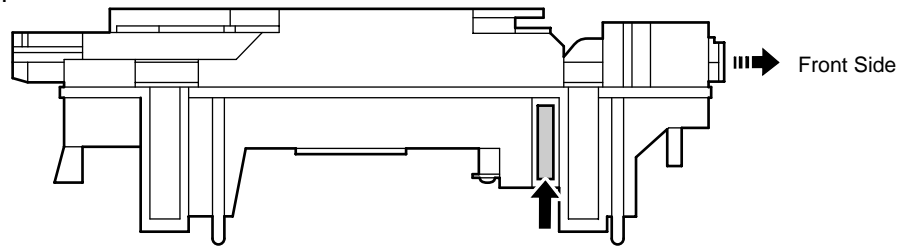
Extension Cable Diagram



6-3. REPLACEMENT OF MAIN PARTS

<Take out disk>

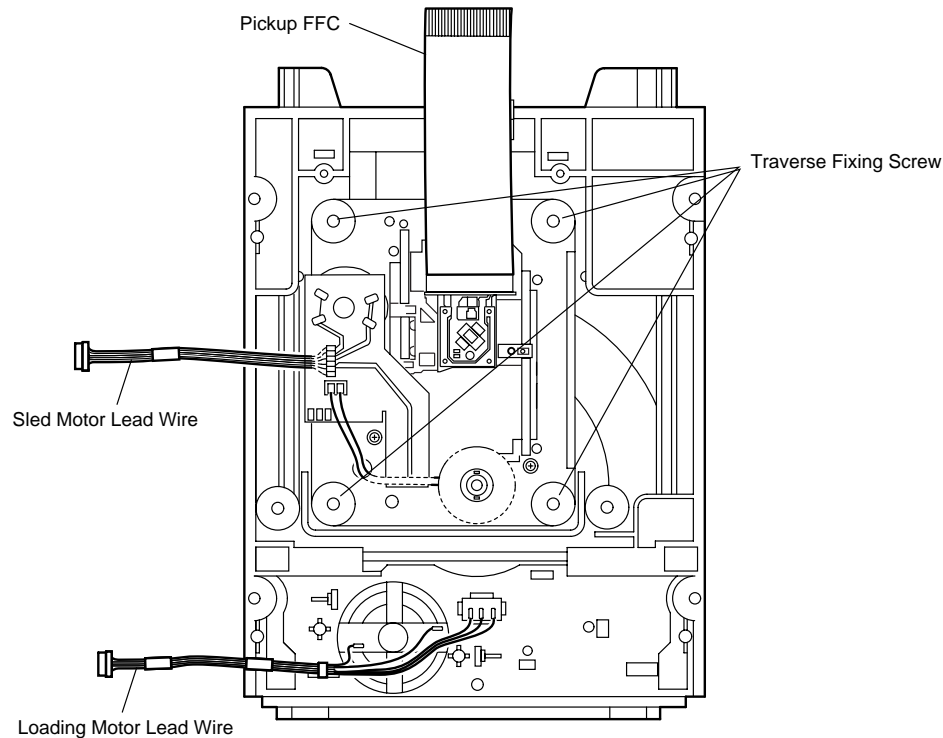
1. Remove the mechanism with angle from the set (refer to ③⑤ on page 156).
2. It is in such cases as the thin driver, and it is pushed in slowly, and a tray is drawn in the arrow direction the slide rack on the left of the base chassis.
3. Take out disk.



<Disassembling and assembling the mechanism chassis>

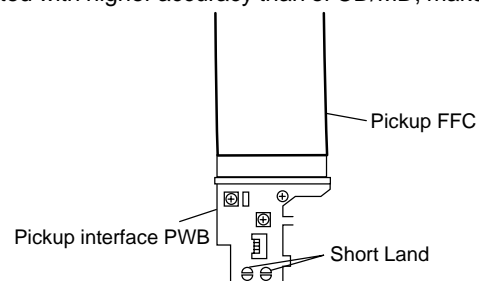
1. After setting the mechanism chassis to the angle state, ground it to prevent the electrostatic discharge damage of the pickup.
2. Remove [S] and the DVD shield (lower) ⑤⑥ (refer to the illustration on page 156).
3. Remove [P], [Q], [Z] and [R] ⑧③ from the DVD main PWB unit ⑥⑧, and loosen the 4 screws ④⑤ to remove the DVD main PWB unit ⑥⑧. (Pickup relay FFC ⑦④ isn't removed.) (refer to the illustration on page 156)
4. Remove screws fixing the base chassis (located at the back right and at front left when facing the set).
5. With the pickup FFC connected, turn over the base chassis and short (solder) two short lands on the pickup interface PWB in order to prevent the electrostatic discharge damage of the pickup.
6. Remove the pickup FFC from the main PWB.
7. Remove the pickup FFC from the pickup interface PWB.
8. Remove the traverse mounting screws to remove the traverse chassis ass'y.

Note: After assembly and wiring, remove the solder joint of the short land. If short-circuited, a disk is not played back.



<Replacing the pickup and the spindle motor>

Since the pickup optical axis and turntable inclination of DVD are adjusted with higher accuracy than of CD/MD, make a replacement as a mechanism service chassis ass'y (refer to Parts List).

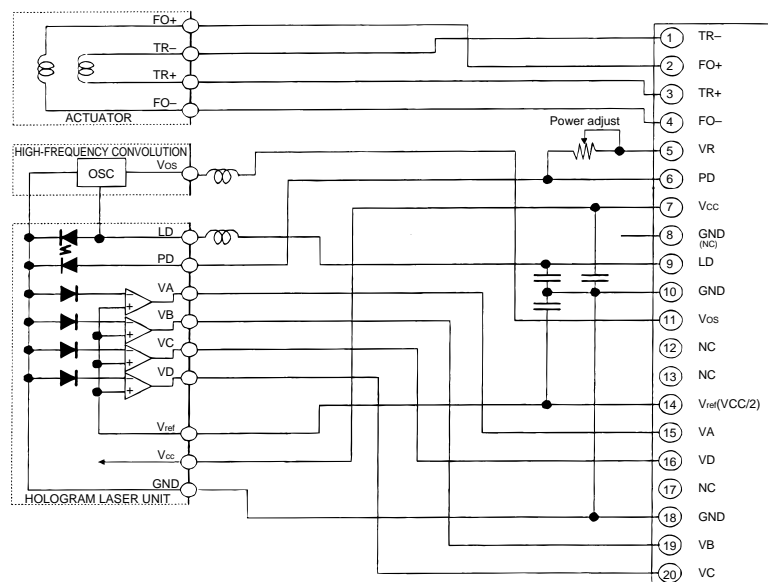


7. OPERATION OF PICKUP

7-1. CIRCUIT CONFIGURATION OF PICKUP

The pickup unit reads signals from the disk, and the flexible cable is connected to the board. The following signals flow through the cable.

7-2. EQUIVALENT CIRCUIT OF PICKUP



7-3. POLARITIES OF SIGNAL

Focus FO+, FO-	When electric current is flowed from FO+ to FO-, the lens comes to near the disk.
Tracking TR+, TR-	When electric current is flowed from TR+ to TR-, the lens goes toward the outer circumference.

7-4. SIGNALS OF PICKUP

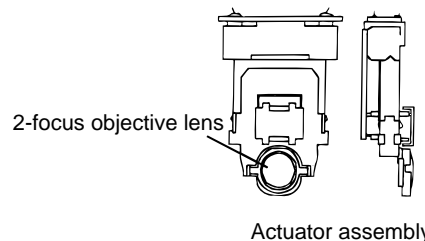
7-4-1. Tracking drive signal (TR+, TR-)

The signal drives the tracking servo mechanism which projects the beam on the track by moving the objective lens (OL) to the outer or inner circumference (at a right angle against the track) of the disk.

7-4-2. Focus drive signal (FO+, FO-)

The signal drives the focus servo mechanism which aligns the focus on the pit of the disk by elevating OL (vertically against the disk surface).

The VR terminal is connected to GND.



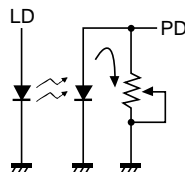
7-4-3. Monitor Diode (PD)

Since the laser diode largely varies output of the laser light even if the flowing current is slightly varied, the projection light is detected with the monitor diode to control the laser light to be equally output.

Since the current varies on the monitor diode according to the intensity of the received light of the laser diode, the drive current of the laser diode is reduced if the current of the monitor diode increases. On the contrary, the drive current of the laser diode is increased if the current of the monitor diode decreases.

As the projection light of the laser diode becomes stronger, the current of the monitor diode increases to increase the current which flows into the monitor diode output (PD). This is input to the pin 44 of IC301 and is compared with the reference voltage to control the drive current of the laser diode.

The circuit is called ALPC (Automatic Laser Power Control).



When the quantity of laser light increases, the current shown in figure increases and the PD terminal voltage rises.

IC301 is used to control. The LD terminal voltage lowers, and the quantity of light reduces. (IC301 is actuated by voltage input.)

7-4-4. Laser diode drive current control (LD)

Power supply to drive the laser diode

7-4-5. High-frequency convolution module power supply (VOSC)

The high-frequency convolution imposes the high-frequency signal on the DC current to impose the high frequency on the drive current of the laser. Thus, the interference of outgoing light and reflected light is prevented.

7-4-6. HF Signal (VA, VB, VC, VD)







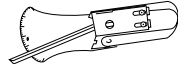

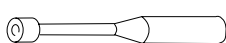


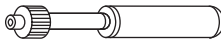

Signals recorded in the disk

8. ADJUSTMENT, REPLACEMENT AND ASSEMBLY OF MECHANICAL UNITS

The explanation given below relates to the on-site general service (field service) but it does not relate to the adjustment and replacement which need high-grade equipment, jigs and skill. For example, the drum assembling, replacement and adjustment service must be performed by the person who have finished the technical courses.

8-1. MECHANISM CONFIRMATION ADJUSTMENT JIG

So as to perform completely the mechanism adjustment prepare the following special jigs. So as to maintain the initial performance of the machine the maintenance and check are necessary. Utmost care must be taken so that the tape is not damaged. If adjustment needs any jig, be sure to use the required jig.

No.	Jig Item	Part No.	Code	Configuration	Remarks		
1.	Torque Cassette Meter	JiGVHT-063	CZ		This cassette torque meter is used for checking and adjusting the torque of take-up for measuring tape back tension.		
2.	Torque Gauge	JiGTG0090	CM		These Jigs are used for checking and adjusting the torque of take-up and supply reel disks.		
		JiGTG1200	CN				
3.	Torque Gauge Head	JiGTH0006	AW				
4.	Torque Driver	JiGTD1200	CB		When fixing any part to the threaded hole using resin with screw, use the jig. (Specified torque 5 kg)		
5.	Master Plane Jig and Reel Disk Height Adjusting Jig	JiGRH0002	BR		These Jigs are used for checking and adjusting the reel disk height.		
		JiGMP0001	BY				
6.	Tension Gauge	JiGSG2000	BS		There are two gauges used for the tension measurements, 300 g and 2.0 kg.		
		JiGSG0300	BF				
7.	Pinch pressing force measuring jig	JiGADP0003	BK		This Jig is used with the tension gauge. Rotary transformer clearance adjusting jig.		
8.	Reverse guide height adjustment box driver	JiGDRiVER11055	AR		This Jig is used for height adjustment of the reverse guide (for reverse guide height adjustment).		
9.	Alignment Tape	VROUBZFS	CK		Video	Audio	Track
		625 Monoscope			6kHz	35μm	
		625 Monoscope and Colour bar			6kHz and 1kHz	49μm	
10.	Guide roller height adjustment driver	JiGDRiVERH-4	AP		This screwdriver is used for adjusting the guide roller height.		
11.	X value adjustment gear driver	JiGDRiVER-6	BM		For X value adjustment		
12.	Reverse Guide Height Adjusting Jig	JiGRVGH-F18	BU		This Jig is used for height adjustment of the reverse guide.		

8-2. MAINTENANCE CHECK ITEMS AND EXECUTION TIME

Perform the maintenance with the regular intervals as follows so as to maintain the quality of machine.

Maintained Parts	500 hrs.	1000 hrs.	1500 hrs.	2000 hrs.	Possible symptom encountered	Remarks
Guide roller ass'y	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lateral noises Head occasionally blocked	Abnormal rotation or significant vibration requires replacement.
Sup guide shaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Clean tape contact part with the specified cleaning liquid.
Reverse guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Slant pole on pole base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Full erase head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Color and beating	Clean tape contact area with the specified cleaning liquid.
A/C head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small sound or sound distortion	
Upper and lower drum ass'y	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Poor S/N ratio, no color Poor flatness of the envelope with alignment tape	
Capstan D.D. motor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No tape running, uneven color	
Pinch roller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No tape running, tape slack	Clean rubber and rubber contact area with the specified cleaning liquid.
Reel belt		<input type="checkbox"/>		<input type="checkbox"/>	No tape running, tape slack, no fast forward/ rewind motion	
Tension band ass'y				<input type="checkbox"/>	Screen swaying	
Loading motor				<input type="checkbox"/>	Cassette not loaded or unloaded	
Idler ass'y				<input type="checkbox"/>	No tape running, tape slack	
Limiter pulley		<input type="checkbox"/>		<input type="checkbox"/>		
Supply/take-up main brake levers				<input type="checkbox"/>	Tape slack	
AHC (Automatic head cleaner)		<input type="checkbox"/>		<input type="checkbox"/>		Replace the roller of the cleaner when it wears down. Just change the AHC roller assembly for new one.

NOTE ○ : Part replacement. □ : Cleaning △ : Apply grease
<Specified> Cleaning liquid Industrial ethyl alcohol

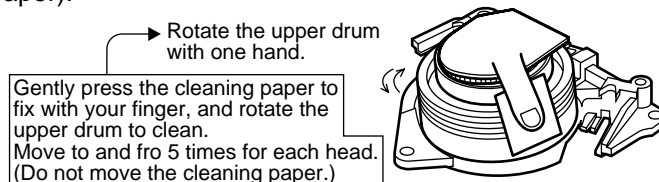
* This mechanism does not need electric adjustment with variable resistor. Check parts. If any deviation is found, clean or replace parts.

Video head cleaning procedure

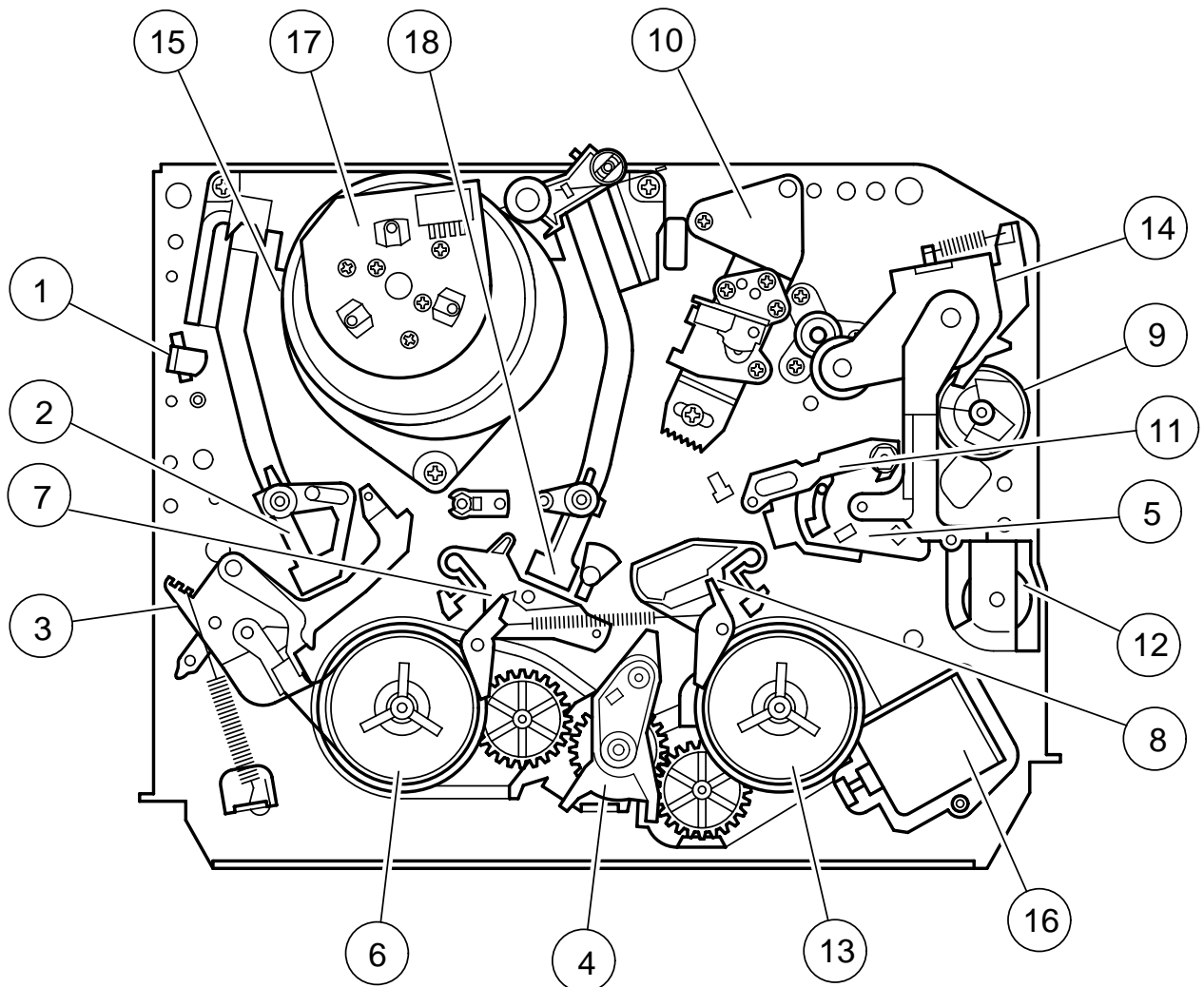
1. Apply one drop of cleaning liquid to the cleaning paper with the baby oiler.
2. Gently press the cleaning paper against the video head to fix your finger, and move the upper drum so that each head is passed to and fro 5 times (do not move the cleaning paper).
3. Wipe with the dry cleaning paper.

Notes :

- Use the commercially available ethanol of Class 1 as cleaning liquid.
- Since the video head may be damaged, do not move up and down the cleaning paper.
- Whenever the video head is cleaned, replace the cleaning paper.
- Do not apply this procedure for the parts other than the video head.

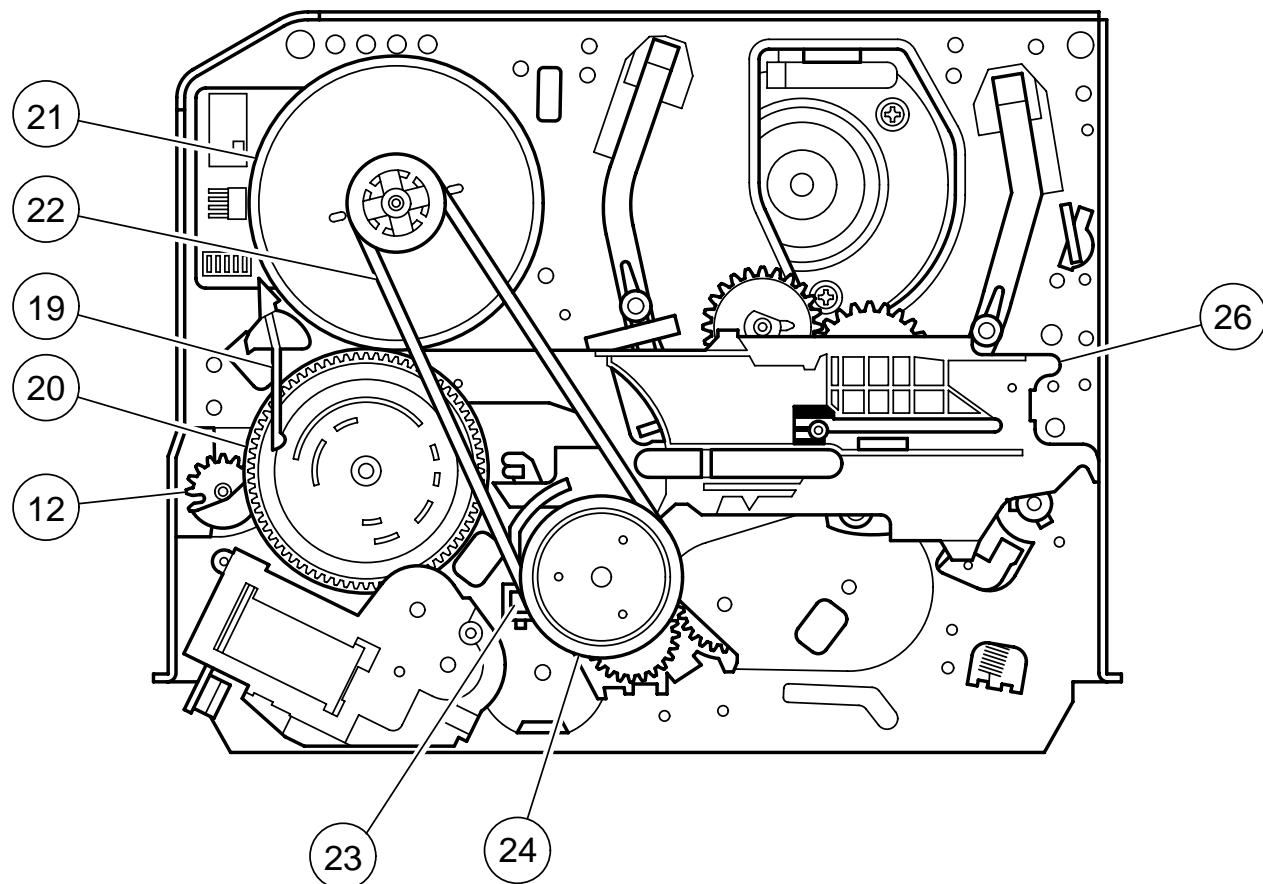


Parts Code	Description	Code
ZPAPRA56-001E	Cleaning Paper	AW
ZOILR-02-24TE	Babe Oiler (Spoit)	AH

8-3. FUNCTION OF MAJOR MECHANICAL PARTS (TOP VIEW)

No.	Function	No.	Function
1	Full erase head	11	Reverse guide lever ass'y
2	Supply pole base ass'y	12	Casecon drive gear
3	Tension arm ass'y	13	Take-up reel disk
4	Idler wheel ass'y	14	Pinch roller lever ass'y
5	Pinch drive lever ass'y	15	Drum ass'y
6	Supply reel disk	16	Loading motor
7	Supply main brake ass'y	17	Drum motor
8	Take-up main brake ass'y	18	Take-up pole base ass'y
9	Pinch drive cam		
10	A/C Head ass'y		

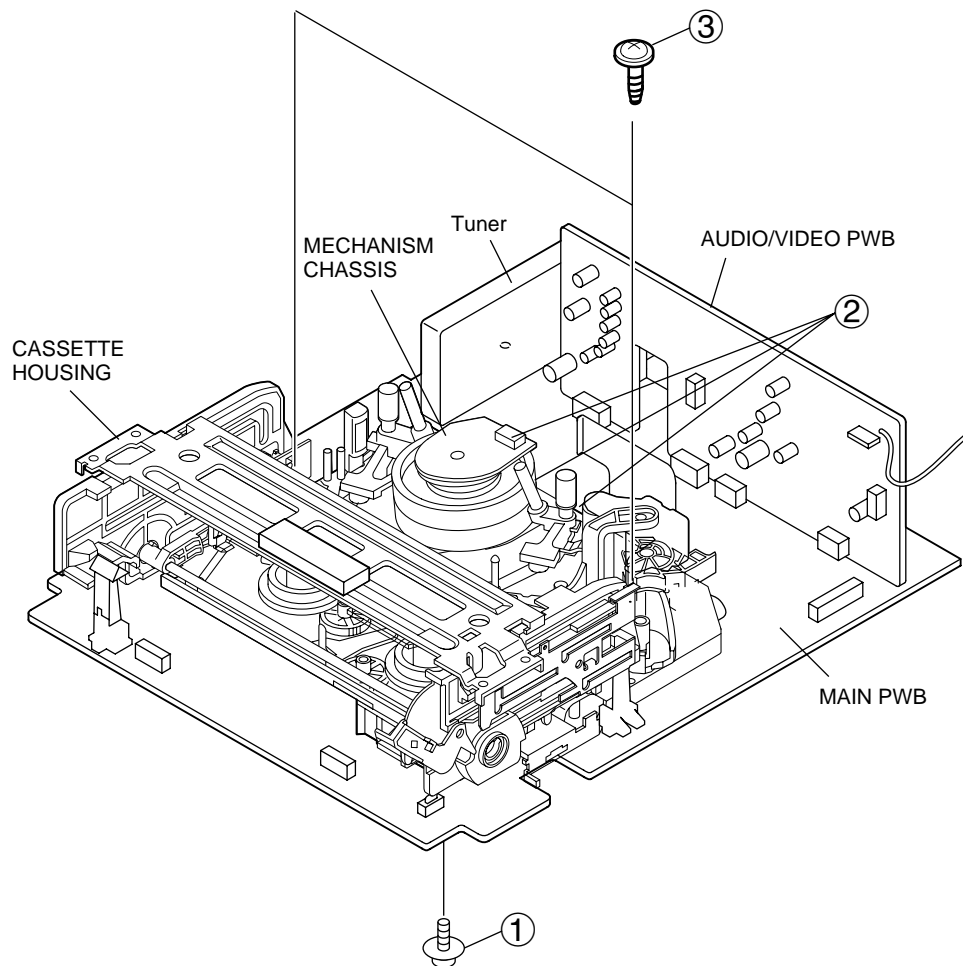
FUNCTION OF MAJOR MECHANICAL PARTS (BOTTOM VIEW)



No.	Function	No.	Function
19	Slow brake	23	Clutch lever
20	Master cam	24	Limiter pulley ass'y
21	Capstan D.D. motor	12	Casecon drive gear
22	Reel belt	26	Shifter

8-4. DISASSEMBLING THE MECHANISM/MAIN PWB ASSEMBLY

1. When removing the mechanism from the main PWB.
Remove the PWB bottom plate 1 screw ①.
Remove the FFC cable (AA, AD, AH) ② which connecting the PWB and the mechanism.
Take out vertically the mechanism so that it does not damage the adjacent parts.
2. Removing the mechanism and cassette housing.
Remove 2 screws ③ fixing the cassette housing to the mechanism, and remove the cassette housing.



8-5. CARES WHEN REASSEMBLING

INSTALLING THE CASSETTE HOUSING

When the cassette housing is installed on the mechanism, the initial setting is essential condition.

There are two initial setting methods, namely electrical and mechanical.

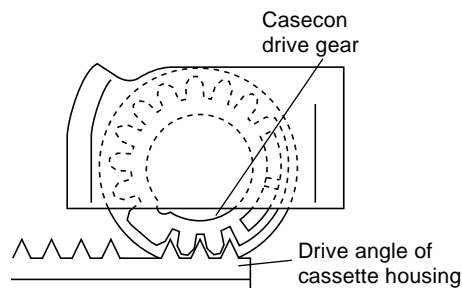
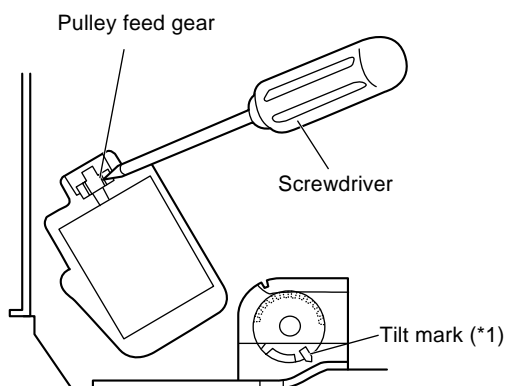
1. Electrical initial setting

So as to perform initial setting of mechanism execute the Step 1 of Installation of cassette housing. After ascertaining the return to the initial setting position (*1) install the

cassette housing. (Conditions: When mechanism and PWB have been installed)

2. Mechanical initial setting

Feed the pulley feed gear of loading motor with screw driver. After ascertaining the return to the initial set position (*1) install the cassette housing in the specified position. (This method is applied only for the mechanism.)

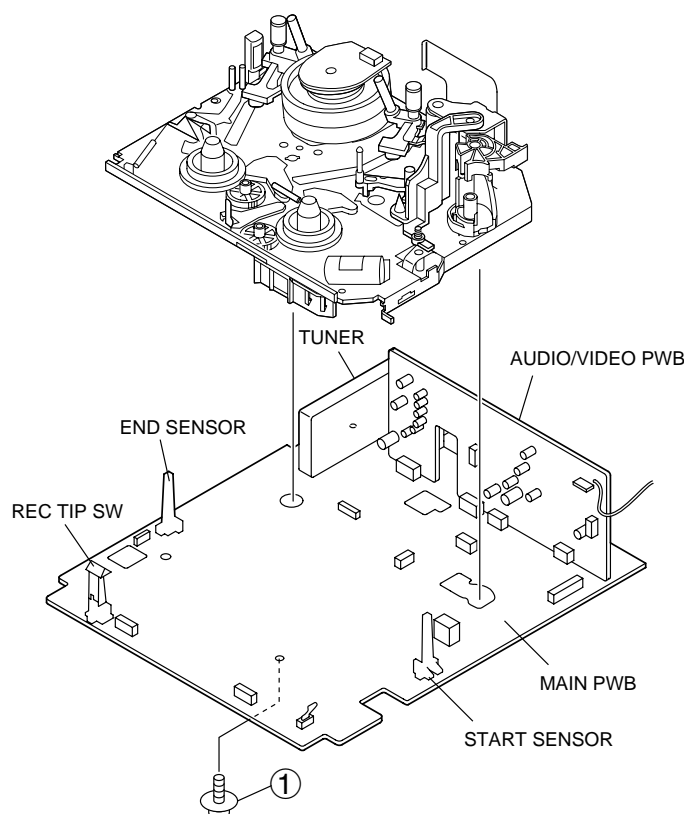


INSTALLING THE MECHANISM ON PWB

Lower vertically the mechanism, paying attention to the mechanism edge, and install the mechanism with due care so that the parts are not damaged. So as to fix the mechanism to the main PWB install 1 screw ①. For other, fix the vicinity of loading motor and solder joint side of main PWB.) Connect again the FFC cable (AA-MH, AD-ME, AH-MH) between the mechanism and the main PWB.

PARTS WHICH NEED PARTICULAR CARE

When installing the mechanism chassis on the PWB unit, take care so as to prevent deformation due to contact of mechanism chassis with REC TIP SW.



8-6. REMOVING AND INSTALLING THE CASSETTE HOUSING

• Removal

1. In the cassette removing mode, remove the cassette.
2. Unplug the power cord.
3. Remove in the following numerical order.
 - a) Remove two screws ①.
 - b) Slide and pull up the cassette housing control.

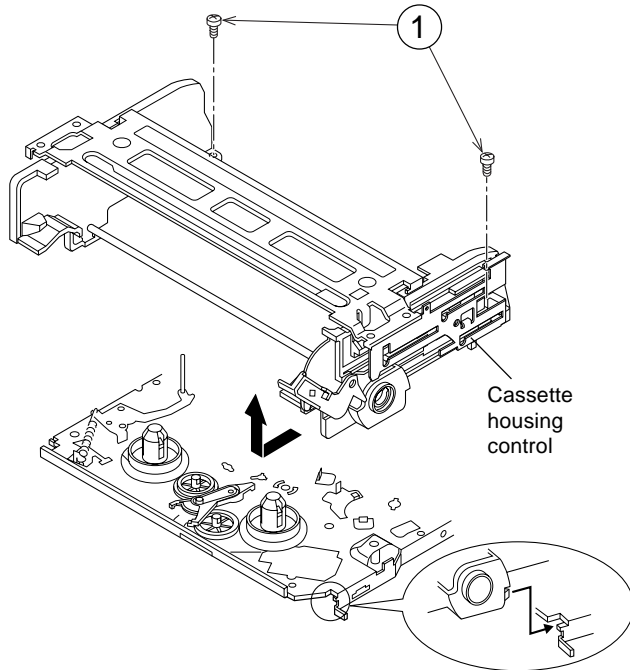


Figure 8-1.

• Reassembly

1. Before installing the cassette housing control, short-circuit between TP5102 and TP5103 provided goes left at VCR display PWB, press the eject button. The casecon drive gear turns and stops when the positioning mark appears. Engage two teeth of casecon drive gear with the three teeth of casecon drive angle gear, and set on the mechanism chassis as shown below.

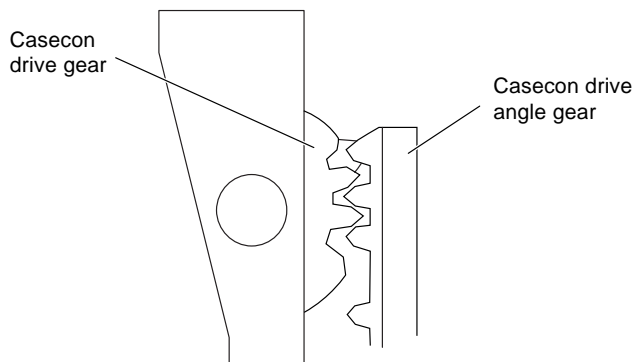


Figure 8-2.

2. Install in the reverse order of removal.
Power source plug is pulled out after the mounted completion, and it comes.

Notes:

1. When fitting the S/E sensor holder to the cassette controller frame L/R, take care.
2. Misengagement of teeth of casecon drive gear and drive angle gear causes malfunction. (The cassette cannot be set, load and ejection are repeated).
3. In the case when you use the magnet screw driver, never approach the magnet driver to the A/C head, FE head, and drum.
4. When installing or removing, take care so that the cassette housing control and tool do not contact the guide pin or drum.
5. After installing the cassette housing control once perform cassette loading operation.

8-7. TO RUN A TAPE WITHOUT THE CASSETTE HOUSING CONTROL ASSEMBLY

1. Remove the full-surface panel.
2. Short-circuit between TP5102 and TP5103.
3. Plug in the power cord.
4. Turn off the power switch.
(The pole bases move into U.L. position.)
5. Open the lid of a cassette tape by hand.
6. Hold the lid with two pieces of vinyl tape.
7. Set the cassette tape in the mechanism chassis.
8. Stabilize the cassette tape with a weight (500g) to prevent floating.
9. Turn on the power switch.
10. Perform running test.

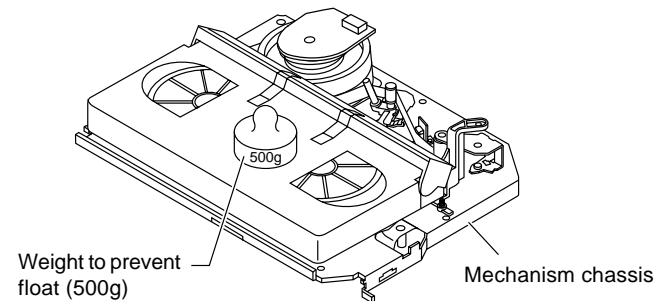


Figure 8-3.

Note:

The weight should not be more than 500g.

To take out the cassette tape.

1. Turn off the power switch.
2. Take out the cassette tape.

8-8. REEL DISK REPLACEMENT AND HEIGHT CHECK

• Removal

1. Remove the cassette housing control assembly.
2. Pull the tension band out of the tension arm ass'y.
3. Remove the Supply/Take-up main brake ass'y.
4. Open the hook at the top of the reel disk, and remove the reel disk.

Note:

Take care so that the tension band ass'y and main brake ass'y (especially soft brake) are not deformed.

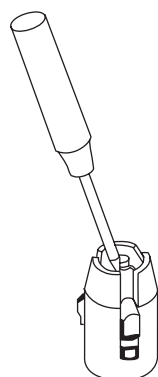
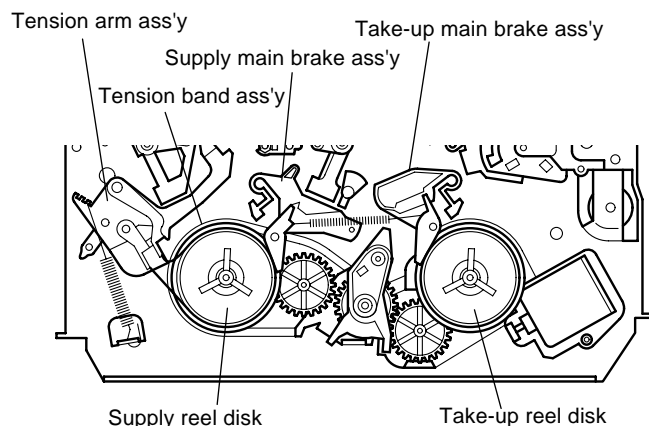


Figure 8-4.

Note:

When the tension band ass'y is pressed in the direction of the arrow for removal, the catch is hard to be deformed.

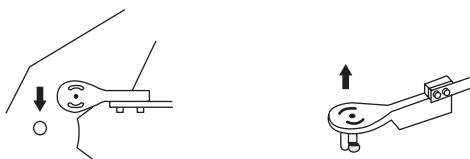


Figure 8-5.

• Reassembly (Supply reel disk)

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Match the phases of reel disk and reel relay gear, and set the new reel disk.
3. After checking the reel disk height, wind the tension band ass'y around the reel disk, and insert into the hole of tension arm ass'y.
4. Assemble the Supply main brake ass'y.

Notes:

1. When installing the reel disk, take due care so that the tension band ass'y is not deformed and grease does not adhere.
2. Do not damage the Supply main brake ass'y. Be careful so that grease does not adhere to the brake surface.

• Reassembly (Take-up reel disk)

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Align the phase of the reel disk to that of the reel relay gear and to install a new take-up reel disk onto the shaft.
3. Check the reel disk height and reassemble the take-up main brake ass'y.

Note:

1. Take care so that the Take-up main brake ass'y is not damaged. Take care so that grease does not adhere the brake surface.
2. After reassembly, check the video search rewind back tension (see 8-13), and check the brake torque (see 8-17).

• Height checking and adjustment

Note:

1. Set the master plane with due care so that it does not contact the drum.
2. When putting the master plane, shift the reverse guide a little in the loading direction. Care must be taken since excessive shift results in damage.

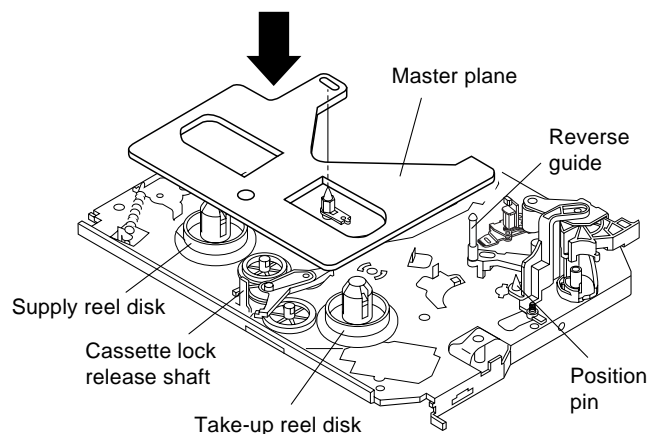


Figure 8-6.

Note:

1. Check that the reel disk is lower than part A but higher than part B. If the height is not correct, readjust the reel disk height by changing the poly-slider washer under the reel disk.

- Whenever replacing the reel disk, perform the height checking and adjustment.

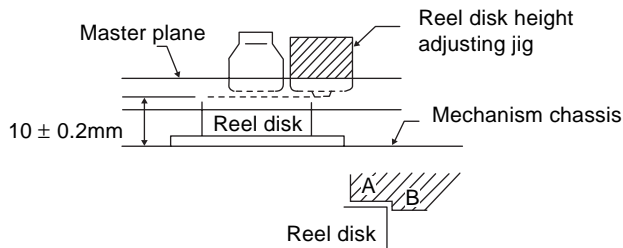


Figure 8-7.

8-9. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN FAST FORWARD MODE

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Setting**
 - Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
 - Press the FF button.
 - To calculate the remaining capacity of the play back mode, slowly rotate the supply reel disk, and then shift it into the forward mode.
- Checking**
 - Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CW direction.
 - Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

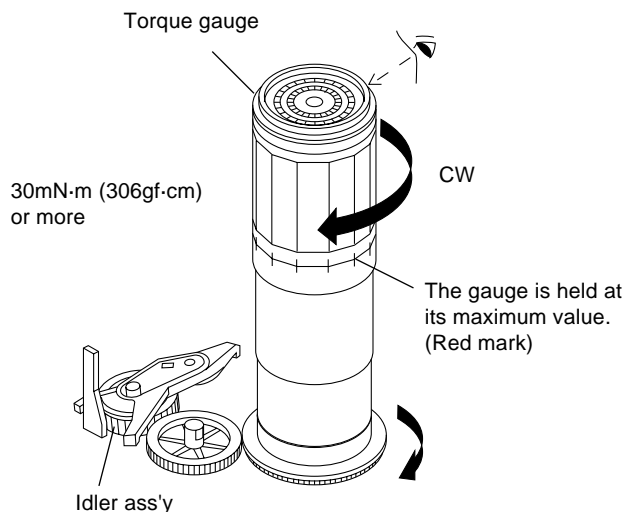


Figure 8-8.

- Adjustment**
 - If the FF winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, and check again.
 - If the torque is less than the set value, replace the reel belt.

Notes:

- Hold the torque gauge by hand so that it is not moved.
- Do not keep the reel disk in lock state. Do not allow long-time measurement.

8-10. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN REWIND MODE

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Setting**
 - Set a torque gauge to zero on the scale. Place it on the supply reel disk.
 - Press the rewind button.
 - To calculate the remaining capacity, slowly rotate the take-up reel disk, and then shift it into the rewind mode.
- Checking**
 - Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CCW direction.
 - Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

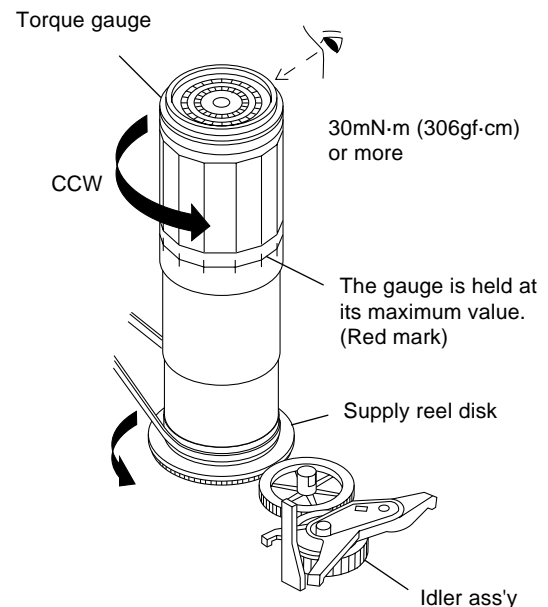


Figure 8-9.

- Adjustment**
 - If the rewind winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, rewind again, and check the winding-up torque.
 - If the winding-up torque is still out of range, replace the drive belt.

Notes:

1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

8-11.CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN RECORD/PLAYBACK MODE

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Turn off the power switch.
- Open the cassette torque meter lid, and fix it with tape.
- Load the cassette torque meter into the unit.
- Put the weight (500g) on the cassette torque meter.
- Turn on the power switch.
- Press the picture record button, and set EP picture record mode (x3).

Set value $EP6.9 \pm 2.5mN \cdot m$ ($70 \pm 25gf \cdot cm$)

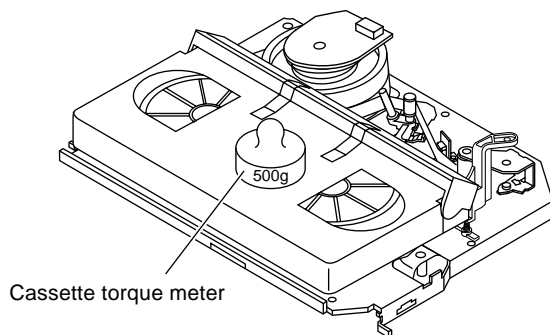


Figure 8-10.

- **Checking**

1. Make sure that value is within the setting $6.9 \pm 2.5mN \cdot m$ ($70 \pm 25gf \cdot cm$).
2. The winding-up torque fluctuates due to variation of rotation torque of limiter pulley ass'y. Read the center value of fluctuation as setting.
3. Set the EP record mode (x3) and make sure that the winding-up torque is within setting.

- **Adjustment**

If the playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

When the torque cassette is set, put a weight (500g) to prevent rise.

When the cassette torque meter is taken out.

Turn off the power switch.

8-12.CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN VIDEO SEARCH REWIND MODE

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.

- **Setting**

Press the playback button and rewind button to set the video search rewinding mode.

- **Checking**

Place the torque gauge on the supply reel disk, and turn it counterclockwise very slowly (one rotation every 1 to 2 seconds) and check that the torque is within the set value $14.0 \pm 3.9mN \cdot m$. ($144 \pm 40gf \cdot cm$)

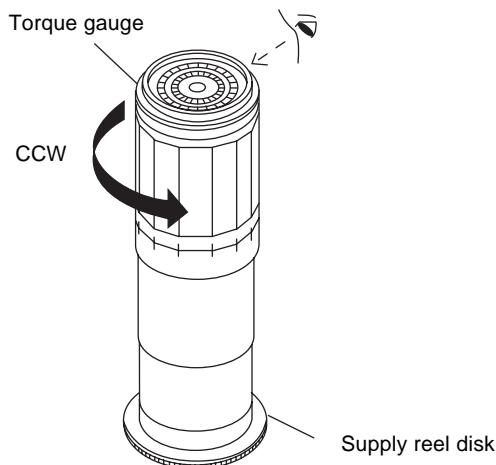


Figure 8-11.

Note:

Surely put the torque gauge on the reel disk to measure. If the torque gauge is raised, accurate measurement is impossible.

- **Adjustment**

If the rewinding playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

The winding-up torque fluctuates due to variation of rotation torque of supply reel disk. Read the center value of fluctuation as setting.

8-13. CHECKING THE VIDEO SEARCH REWIND BACK TENSION

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Checking**
 - After pressing the play button, press the rewind button, and set the video search rewind mode.
 - Place the torque gauge on the take-up reel disk, and turn it counterclockwise very slowly (one rotation every 2 to 3 seconds) and check that the torque is within the set value $3.4 \pm 1.5\text{mN}\cdot\text{m}$ ($35 \pm 15\text{gf}\cdot\text{cm}$).

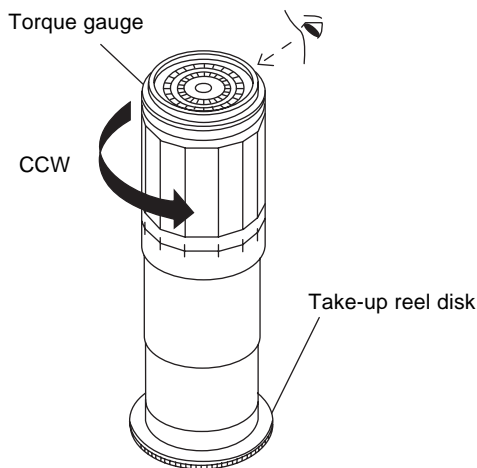


Figure 8-12.

Notes:

Set the torque gauge securely on the take-up reel disk. If it is not secure, the measurement will be incorrect.

8-14. CHECKING THE PINCH ROLLER PRESSURE

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Checking**
Press the play button to set the playback mode.

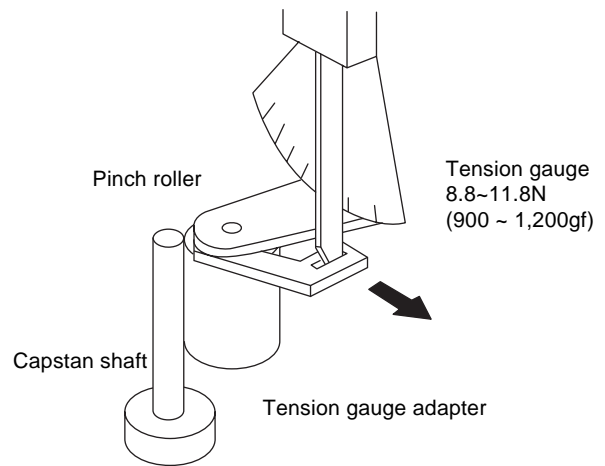


Figure 8-13.

- Detach the pinch roller from the capstan shaft. Do not separate excessively. Or the pinch lever and pinch double action lever may disengage.
- Engage the tension gauge adapter with the pinch roller shaft, and pull in the arrow direction.
- Gradually return the pinch roller, and measure the pulling force when the pinch roller contacts the capstan shaft.
- Make sure that the measured value is within setting 8.8 N to 11.8 N (900 to 1,200gf).

8-15. CHECKING AND ADJUSTMENT OF TENSION POLE POSITION

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Turn off the power switch.
- Setting**
 - Open the cassette tape (E-180), and fix with tape.
 - Set the cassette tape in loading state.
 - Put the weight (500g) on the cassette tape.
 - Turn on the power switch.
 - Make the adjustment with the beginning of a E-180 tape.

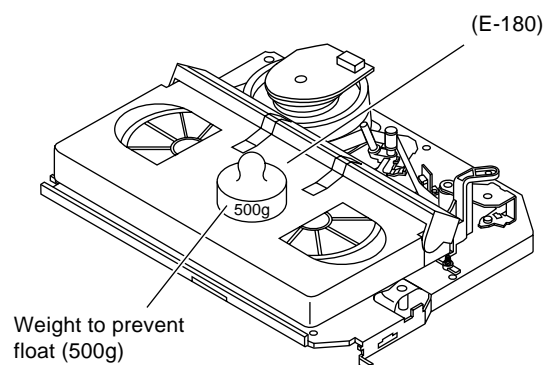
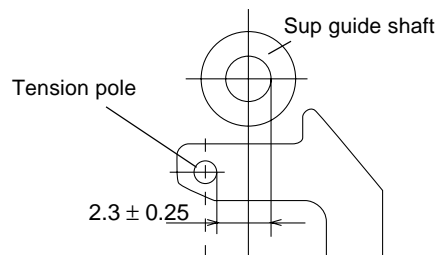


Figure 8-14.

- **Checking**

1. Set a cassette tape, push the REC button to place the unit in the SP record mode. Now check the tension pole position.
2. Visually check to see if the right edge of the tension pole is within the 2.3 ± 0.25 from the right edge of the Sup guide shaft.



Make the adjustment with the beginning of a E-180 tape.

Figure 8-15.

At left side from the center line

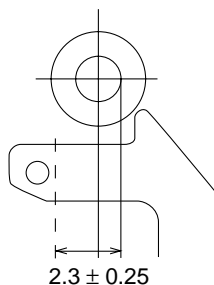


Figure 8-16.

Insert the slotted screwdriver in the tension pole adjuster, and rotate counterclockwise.

At right side from the center line

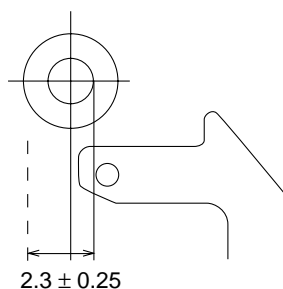


Figure 8-17.

Insert the slotted screwdriver in the tension pole adjuster, and rotate clockwise.

Tension pole adjuster adjusting range

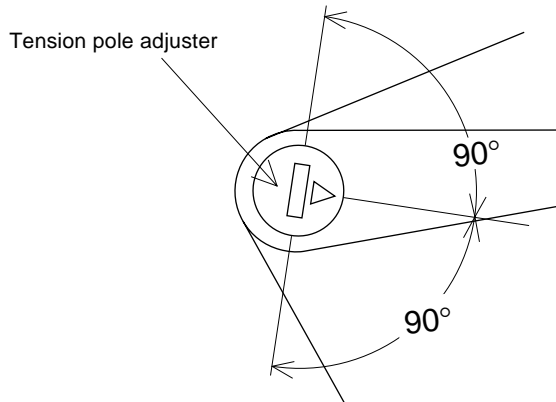


Figure 8-18.

Adjust so that the delta mark of tension pole adjuster is within 90° range (left, right).

8-16.CHECKING AND ADJUSTMENT OF RECORD/PLAYBACK BACK TENSION

- Remove the cassette housing control assembly.
- After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- Turn off the power switch.
- **Setting**
 1. Open the torque cassette meter and fix with tape.
 2. Set the cassette tape in loading state.
 3. Put the weight (500g) on the cassette torque meter.
 4. Turn on the power switch.

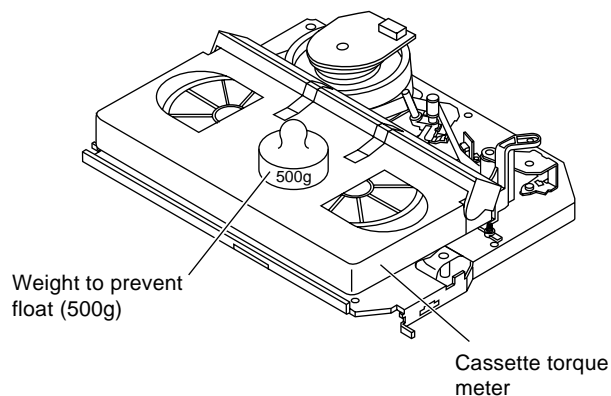


Figure 8-19.

- **Checking**

1. Push the REC button to place the unit in the SP record mode.
2. At this time ascertain that the back tension is within the setting (36.5 to 52g·cm) by seeing the indication of torque cassette meter.

- **Adjustment**

1. If the indication of torque cassette meter is lower than the setting, shift the tension spring engagement to the part A.
2. If the indication of torque cassette meter is higher than the setting, shift the tension spring engagement to the part B.

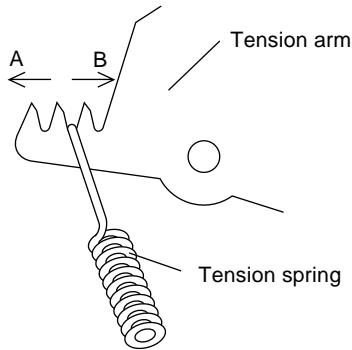
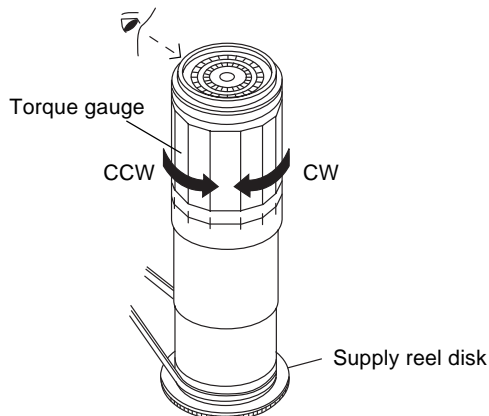


Figure 8-20.

8-17. CHECKING THE BRAKE TORQUE

- **Checking the brake torque at the supply side**



CCW:	2.9~9.8mN·m (30~100gf·cm)
CW:	4.9~13.7mN·m (50~140gf·cm)

Figure 8-21.

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.**

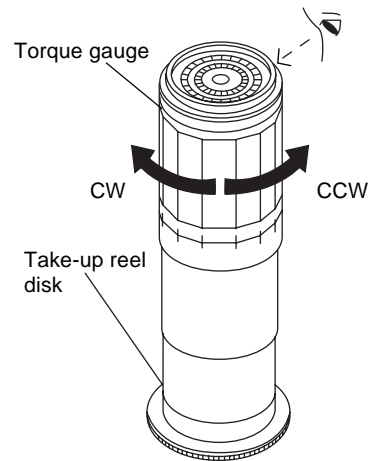
- **Setting**

1. Switch from the FF mode to the STOP mode.
2. Disconnect the power cord.
3. Set a torque gauge to zero on the scale. Place it on the supply reel disk.

- **Checking**

Turn the torque gauge at a rate of about one turn/2 sec in the CW direction/CCW direction with respect to the supply reel disk so that the reel disk and torque gauge pointer rotate at equal speed, and make sure that the value is within the setting (CW direction: 4.9 to 13.7mN·m (50 to 140gf·cm); CCW direction: 2.9 to 9.8mN·m (30 to 100gf·cm)).

- **Checking the brake torque at the take-up side**



CCW:	4.9~13.7mN·m (50~140gf·cm)
CW:	3.9~10.8mN·m (40~110gf·cm)

Figure 8-22.

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.**
- **Setting**
 1. Switch from the FF mode to the STOP mode.
 2. Disconnect the power cord.
 3. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
- **Checking**
 1. Turn the torque gauge at a rate of about one turn/2 sec in the CCW direction/CW direction so that the reel disk and torque gauge pointer rotates at equal speed and make sure that the value is within the setting (CCW direction: 4.9 to 13.7mN·m (50 to 140gf·cm), CW direction: 3.9 to 10.8 mN·m (40 to 110gf·cm)).
 2. Adjustment of the brake torque at the supply side and the take-up side
- Unless the supply side brake torque or take-up side brake torque is within the setting, clean the felt surface of reel disk (supply, take-up) brake lever, check again the brake torque.
- If value cannot be set within the setting yet, replace the main brake ass'y or main brake spring.

8-18. REPLACEMENT OF A/C (AUDIO/CONTROL) HEAD

1. Remove the cassette housing control assembly.
2. In unloading state unplug the power cord.

• Removal

1. Remove the screws ① ② ③, Azimuth screw, Tilt screw.
2. Unsolder the PWB fitted to the A/C head.

Notes:

1. When replacing, never touch the head. If you touched, clean with the cleaning liquid.
2. When removing the screw ③, take care so that the spring may out.

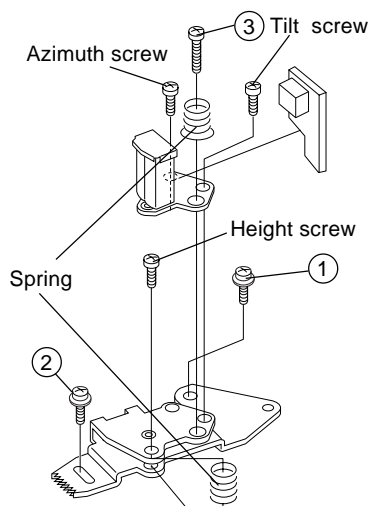


Figure 8-23.

• Replacement

1. Solder the removed PWB to the new head assembly.
2. Adjust the height from the A/C head plate (lower surface) to the A/C head base to 10.8mm with slide calipers. (3 places of azimuth screw section, tilt screw section and A/C head front section) (See the figure below.)

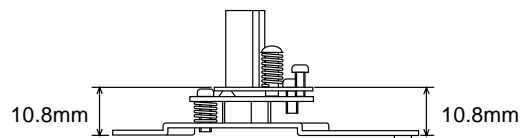
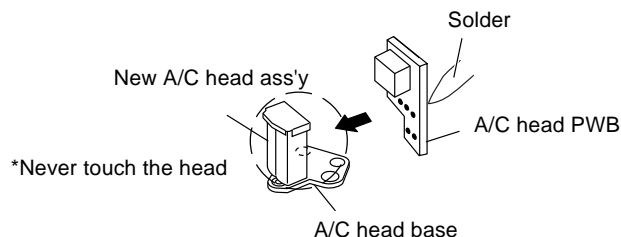


Figure 8-24.

3. Align the left end of gear of A/C head arm with the punched mark of chassis, tentatively tighten the screws ① and ② so as to ensure smooth motion of A/C head arm. Tentative tightening torque must be 0.15 to 0.20 N·m (1.5 to 2.0kgf·cm).

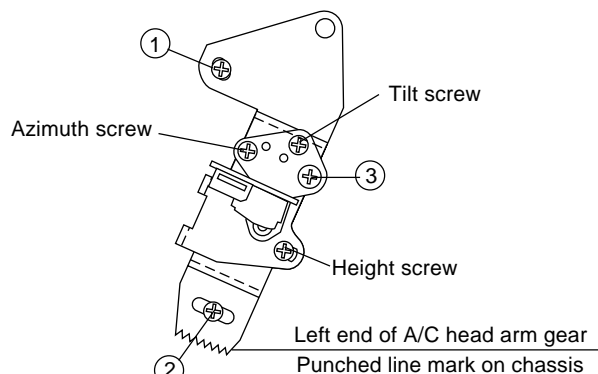
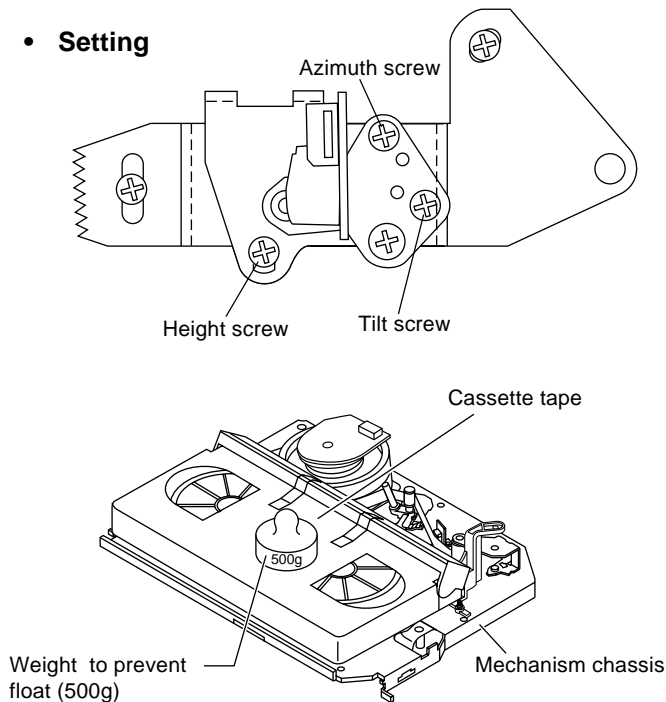


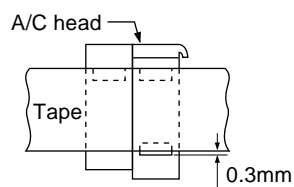
Figure 8-25.

Note:

1. If the screws ① and ② are tighten tentatively too loose, the azimuth and height of A/C head may change when they are finally tightened. Therefore care must be taken.
2. After completion of A/C head be sure to adjust tape running. (Execute the running adjustment by the method described in 8-21.)

8-19. A/C HEAD HEIGHT ROUGH ADJUSTMENT• **Setting****Figure 8-26.**

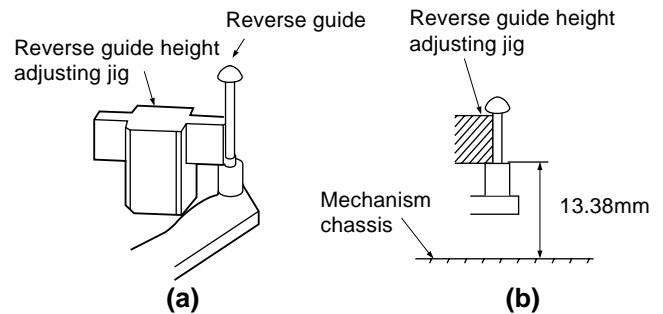
1. Turn off the power switch.
2. Set the cassette tape in the unit.
3. Turn on the power switch.
4. Press the PLAY button to put the unit in the playback mode.
5. Roughly adjust the height of the A/C head by turning the height screw until the tape is in the position shown below.

**Figure 8-27.**• **Adjustment**

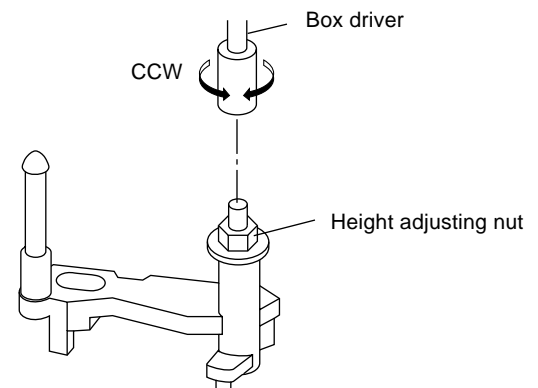
Adjust the height screw visually so that the control head is visible 0.3mm below the bottom of the tape.

8-20. HEIGHT ADJUSTMENT OF REVERSE GUIDE

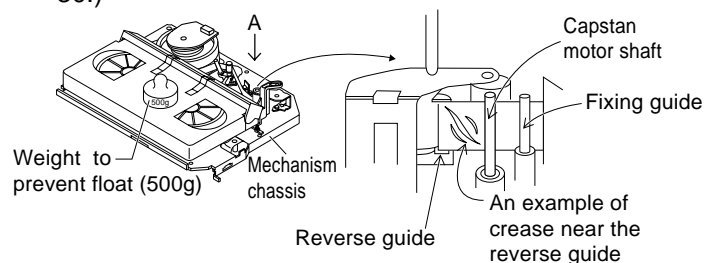
1. Adjust the height from the mechanism chassis to the reverse guide lower flange to 13.38 mm, using the reverse guide height adjustment jig, in tape loading state. (Refer to Figure 8-28 (a) (b).)

**Figure 8-28.**

2. Rotate counterclockwise the reverse guide height adjustment nut 1/10 turn. (For height adjustment use the reverse guide height adjustment box driver (JiGDRIVER 11055)).

**Figure 8-29.**

3. Set the tape, and check for tape crease near the reverse guide in the playback mode. If crease is found, turn the reverse guide adjustment nut to remove crease. (As for crease check refer to Figure 8-30.)



* Check for crease from the A direction.

Figure 8-30.

8-21. ADJUSTMENT OF TAPE DRIVE TRAIN

1. Tape run rough adjustment

- ① Remove the cassette housing control assembly.
- ② After short-circuiting between TP5102 and TP5103 provided goes left at VCR display PWB, plug in the power cord.
- ③ Check and adjust the position of the tension pole. (See 8-15.)
- ④ Check and adjust the video search rewind back tension. (See 8-13.)
- ⑤ Connect the oscilloscope to the test point for PB CHROMA signal output (TP1201). Set the synchronism of the oscilloscope to EXT. The PB CHROMA signal is to be triggered by the head switching pulse (TP1202).
- ⑥ Set the alignment tape (VROCPSV) to play. (Put a 500g weight on the cassette tape to prevent lift of cassette tape.)

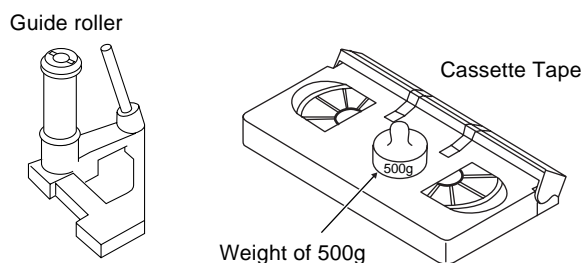


Figure 8-31.

- ⑦ Press the tracking button (+), (-) and change the ATR signal waveform from max to min and from min to max. At this time make sure that the ATR signal waveform changes nearly parallel.
- ⑧ Unless the ATR signal waveform changes nearly parallel, adjust the height of supply side and take-up side guide roller so that the envelope waveform changes nearly parallel. (For ATR signal adjustment procedure refer to Figure 8-35.)
- ⑨ Turn the tilt screw to remove the tape crease at the fixing guide flange. Playback the tape and check for tape crease at the fixing guide flange.
 - (1) If there is no tape crease
Turn the tilt screw clockwise so that tape crease appears once at the flange, and then return the tilt screw so that the crease disappears.
 - (2) If there is tape crease
Turn counterclockwise the tilt screw so that the tape crease disappears.
(Reference) If the tilt screw is turned clockwise crease appears at the lower flange.

Notes:

1. Previously set the tracking control in the center position, and adjust the ATR signal waveform to maximum with X value adjustment nut. Thereby the tape run rough adjustment is facilitated.
2. Especially the outlet side ATR signal waveform must have higher flatness.

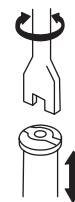
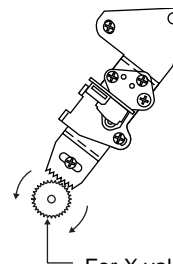


Figure 8-32.

2. Adjustment of A/C head height and azimuth

- ① Perform the initial setting of A/C head position by the method stated in "8-18 Replacement 3".
- ② Connect the oscilloscope to the audio output terminal.
- ③ Using the alignment tape in which 1 kHz linear audio signal has been recorded, adjust the height screw so as to get max audio output.
- ④ Using the alignment tape in which 6 kHz linear audio signal has been recorded, adjust the azimuth screw so as to get max audio output.
- ⑤ The adjustment of ③ and ④ twice or three times repeat, and finally adjust ④.



For X value adjustment
Adjust the X value, turning the gear-type screwdriver.

Figure 8-33.

3. Tape run adjustment

- ① Connect the oscilloscope to PB CHROMA signal output test point, set oscilloscope sync to EXT, trigger-input the PB CHROMA signal (head switching pulse).
- ② Rough adjustment of X value
Tentatively fix A/C head arm screws ① and ② by the method described in 8-18 "Replacement 3". Playback the alignment tape (VROCPSV) and shortcircuit between TP5101 and TP5103. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set. Move the A/C head with the X value adjustment gear driver (JiGDRIVER-6) by the method shown in Figure 8-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: When the A/C head is adjusted, adjust so that the maximum ATR signal waveform is obtained nearest the position of initial setting made in 8-18.)

- ③ Next, press the tracking button (+), (–) and change the ATR signal waveform from max to min and from min to max. At this time adjust the height of supply and take-up side guide roller with the adjustment driver (JiGDRIVER-4) so that the ATR signal waveform changes nearly parallel.
- ④ If the tape is lifted or sunk from the helical lead surface, the PB CHROMA signal waveform appears as shown in Figure 8-35.
- ⑤ Press the tracking button (+), (–) and make sure that the ATR signal waveform changes nearly parallel.
- ⑥ Finally check tape crease near the reverse guide. If tape crease is found, remove it as stated in **8-20** "HEIGHT ADJUSTMENT OF REVERSE GUIDE" item 3.

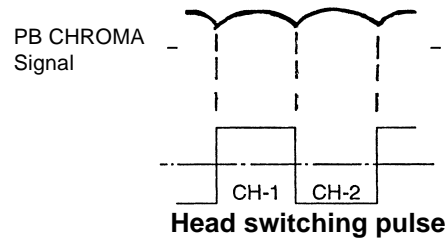


Figure 8-34.

4. A/C head X value adjustment

- ① Tentatively fix A/C head arm screws ① and ② by the method described in **8-18** "Replacement 3".
- ② Playback the alignment tape VROCPSV, and shortcircuit between TP5101 and TP5103. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.

	When the tape is above the helical lead.		When the tape is below the helical lead.	
	Supply side	Take-up side	Supply side	Take-up side
Adjustment	Supply side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Take-up side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Supply side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The supply side guide roller is then rotated in the clockwise direction to flatten the ATR signal.	Take-up side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The take-up side guide roller is then rotated in the clockwise direction to flatten the ATR signal.

Figure 8-35.

- ③ Move the A/C head with the X value adjustment gear driver by the method shown in Figure 8-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: At this time adjust so as to get the maximum ATR signal waveform nearest the A/C head position which has been set in case of X value rough adjustment as stated in **8-21**, 3- ②.)
- ④ Tighten finally the screws ① and ②. Be sure to tighten at first the screw ① and then the screw ②. Final tightening torque is 0.6N·m (If the screw ② is tightened first, the X value may deviate.)
- ⑤ Adjust the playback switching point (Refer to the electric adjustment method.)
- ⑥ Playback the self-picture-recorded tape, and check the flatness of ATR signal waveform and sound.

Notes:

When the A/C head X value adjustment is performed, be sure to perform at first X value rough adjustment (refer to **8-21**, 3-②).

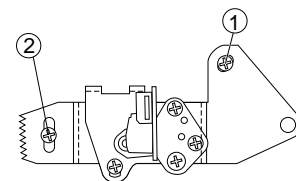


Figure 8-36.

8-22. REPLACEMENT OF THE CAPSTAN D.D. (DIRECT DRIVE) MOTOR

- Remove the mechanism from the main PWB (refer to 8-4 item 1 When removing the mechanism from the main PWB).

• Removal (Follow the order of indicated numbers.)

1. Remove the reel belt ①.
2. Remove the slow brake lever ②.
3. Remove the three screws ③.

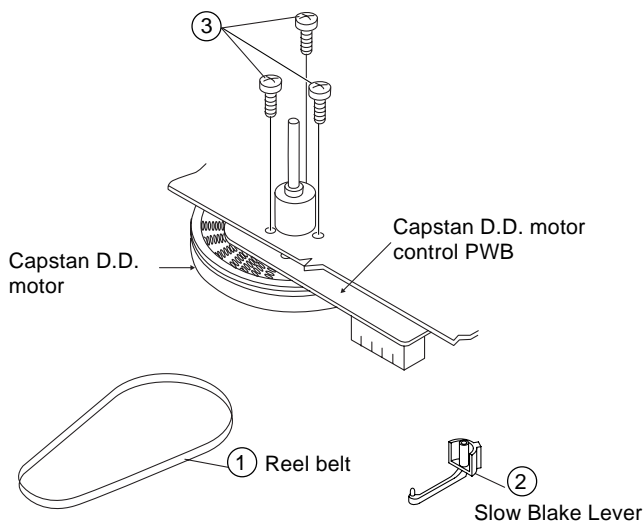


Figure 8-37.

• Reassembly

1. Taking care so that the capstan shaft does not contact the mechanism chassis, set its position on the mechanism chassis, and then install with the three screws ③.
2. Install the slow brake lever ②.
3. Install the reel belt ①.

Notes:

1. Before installing the capstan D.D. motor, confirm whether an acetate tape (ZTAPEN120020E) is drawn on the back of mechanism chassis.

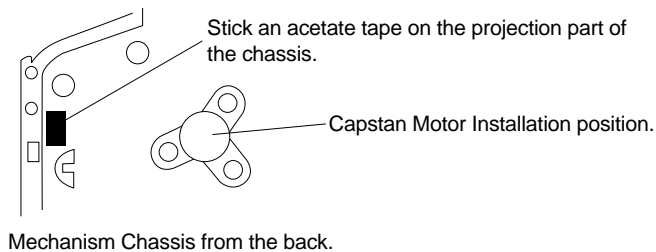


Figure 8-38.

2. After installing the capstan D.D. motor, be sure to rotate the capstan D.D. motor and check the movement.
3. Set the tape, and check for the tape crease near the reverse guide in the playback mode. Adjust the A/C head and azimuth as stated in 8-21 item 2. If crease is found, adjust as stated in 8-21 item 3.

8-23. REPLACEMENT OF DRUM D.D. MOTOR

1. Set the ejection mode.
2. Withdraw the main power plug from the socket.

• Removal (Perform in numerical order.)

1. Disconnect the FFC cable ①.
2. Unscrew the D.D. stator assembly fixing screws ②.
3. Take out the D.D. stator assembly ③.
4. Unscrew the D.D. rotor assembly fixing screws ④.
5. Take out the D.D. rotor assembly ⑤.

Notes:

1. In removing the D.D. stator assembly, part of the drum earth spring pops out of the pre-load collar. Be careful not to lose it.
2. Install, so that the D.D. rotor ass'y and upper drum ass'y mounting direction check holes align. (Align the upper drum dent with the rotor hole.)
3. Be careful not to damage the upper drum or the video head.
4. Protect the hole elements from shock due to contact with D.D. stator or D.D. rotor ass'y.
5. After installation adjust the playback switching point for adjustment of servo circuit.

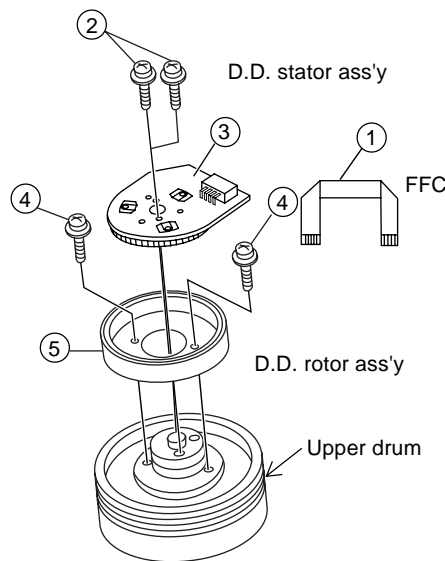


Figure 8-39.

8-24.REPLACING THE UPPER AND LOWER DRUM ASSEMBLY

- Replacement (Perform in the numerical order)
- ① Remove the motor as stated in 8-23 D.D. motor replacement.
- ② Remove the drum earth brush ass'y ②.
- ③ Remove the drum base ③ from the upper and lower drum assembly ①.

[Cares when replacing the drum]

1. Be careful so that the drum earth brush is not lost.
2. Do not touch directly the drum surface.
3. Fit gently the screwdriver to the screws.
4. Since the drum assembly is an extremely precise assembly, it must be handled with utmost care.
5. Make sure that the drum surface is free from dust, dirt and foreign substances.
6. After replacing the drum be sure to perform the tape running adjustment.
After that, perform also the electrical adjustment.
 - Playback switching point adjustment
 - X-position adjustment and check
 - Standard and x-3 slow tracking adjustment
7. After replacing the drum clean the drum.

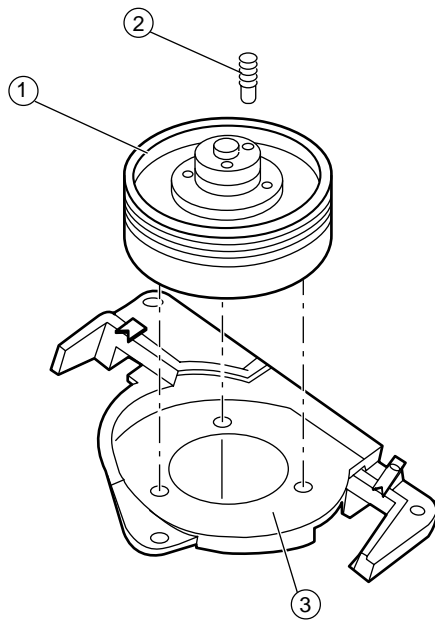


Figure 8-40.

8-25.ASSEMBLING OF PHASE MATCHING MECHANISM COMPONENTS

- Assemble the phase matching mechanism components in the following order.
- 1. Assemble the pinch roller assembly and pinch drive cam.
- 2. Mounting the shifter (on the back of the mechanism chassis).
- 3. Mounting the master cam (on the back of the mechanism chassis).
- 4. Assemble the connection gear, slow brake and loading motor parts.

• PINCH DRIVE CAM AND PINCH ROLLER ASSEMBLING METHOD.

(Place the following parts in position in numerical order.)

- (1)Reverse drive lever ①
- (2)Reverse guide spring ②
- (3)Reverse guide lever ass'y ③
- (4)Reverse guide height adjusting nut ④
- (5)Pinch drive cam ⑤
- (6)Pinch roller ass'y ⑥
- (7)Open lever ⑦

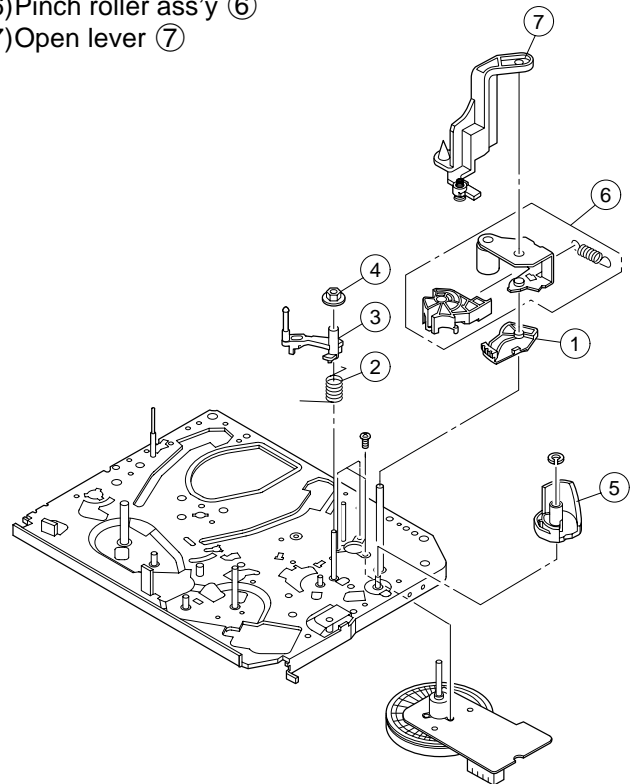
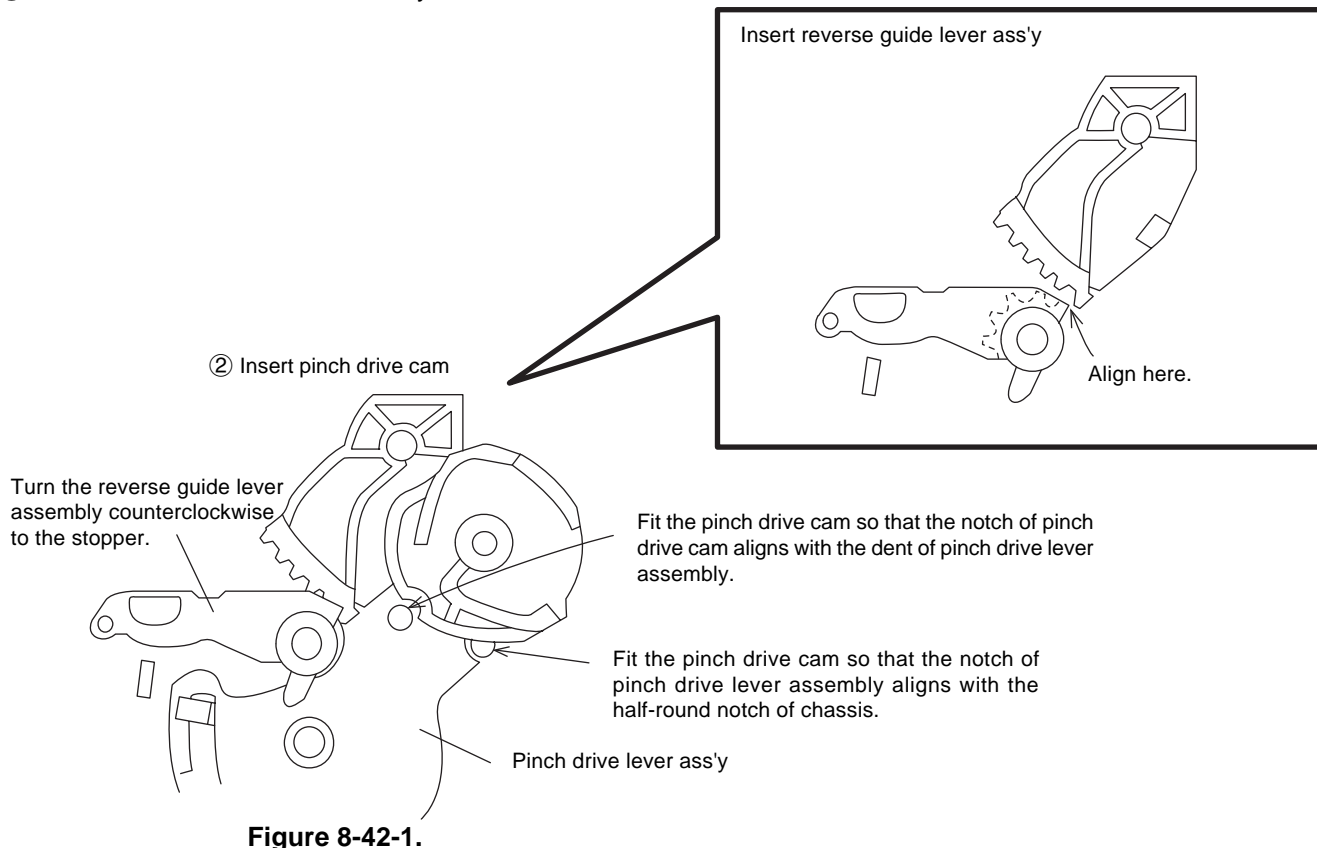


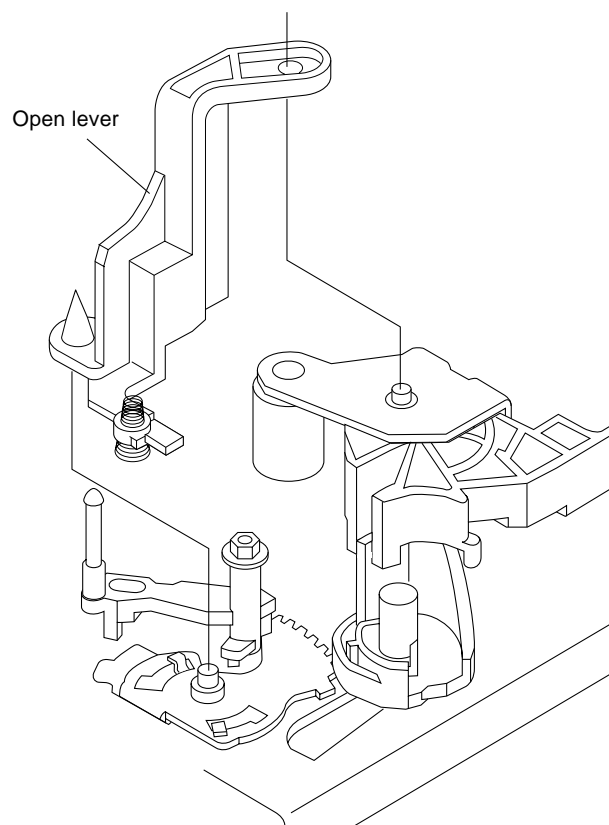
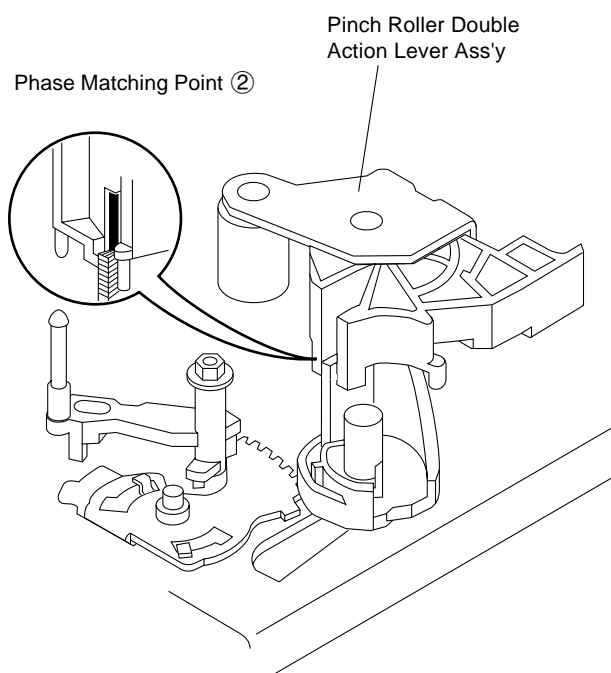
Figure 8-41.

① Insert Reverse Guide Lever Ass'y

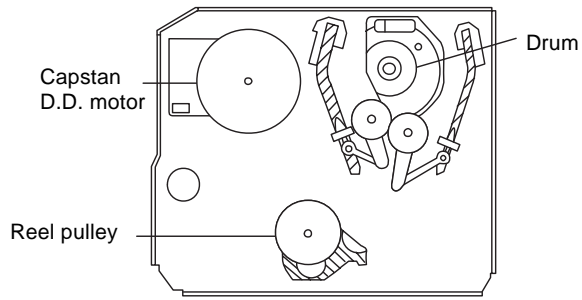


② Insert Pinch Roller/Pinch Double Action Lever Ass'y.

③ Insert Open Lever.



8-26. INSTALLING THE SHIFTER



(Bottom side of mechanism chassis)

Figure 8-43.

1. Make sure that the loading gear is at the Phase-Matching point ① as shown below.
2. Install, paying attention to insert point ⑤ and release point ③.
3. For the phase matching at the insert point ①, see the Phase-Matching point ② as shown below.
4. Finally fix the inserts ① and ④.

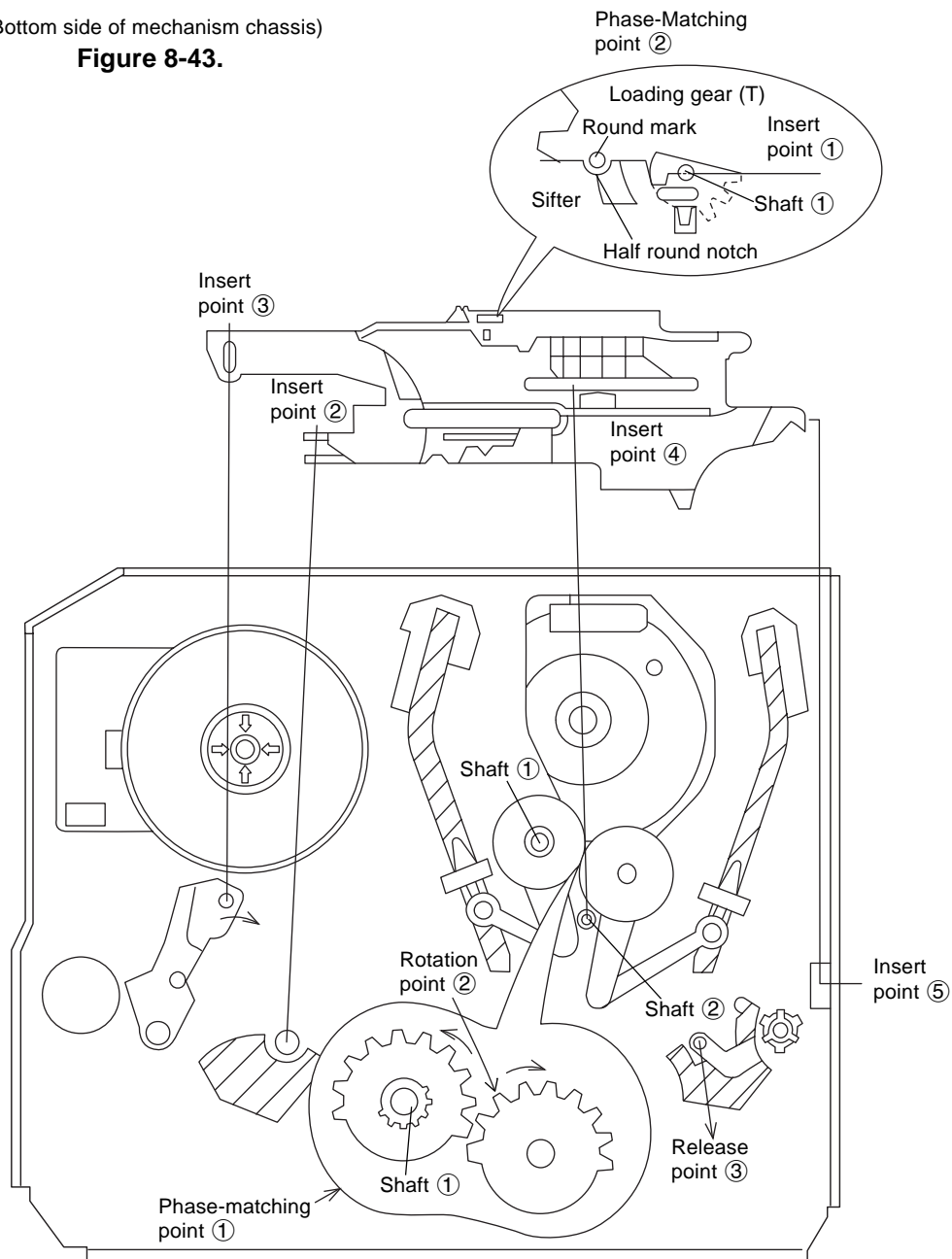


Figure 8-44.

8-27. INSTALLING THE MASTER CAM (AT REAR SIDE OF MECHANISM CHASSIS)

1. Make sure beforehand that the shifter is at the point as shown below.
2. Place the master cam in the position as shown below.

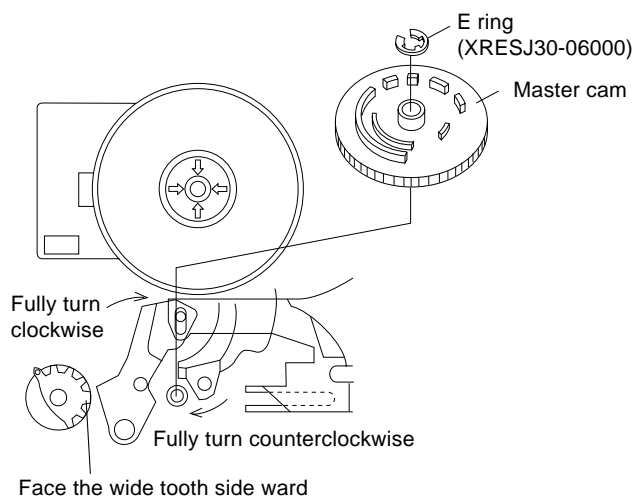
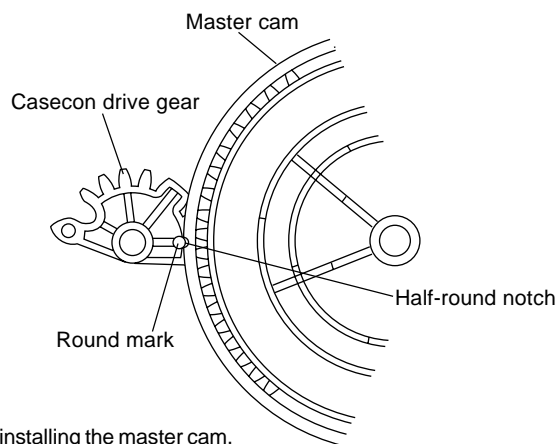


Figure 8-45-1.

Note:

See the figure below for the phase matching between the master cam and the casecon drive gear.

3. Finally fix with the E ring.



When installing the master cam, align the casecon drive gear round mark with the half-round notch of master cam.

Figure 8-45-2.

8-28. REPLACEMENT OF LOADING MOTOR

• Removal

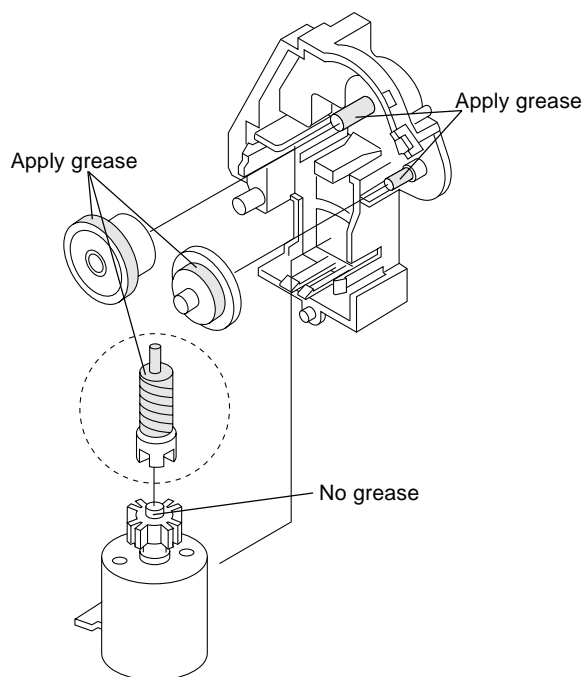


Figure 8-46.

• Replacement

Remove the loading motor, and install the replacement loading motor as shown below.

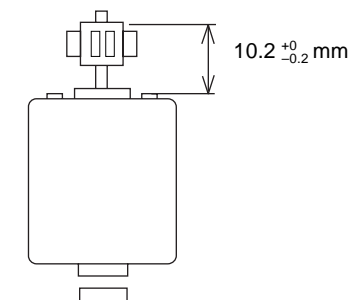


Figure 8-47.

The loading motor pressing-in must be less than 147 N (15 kgf).

Adjust the distance between motor and pulley to 10.2 +0/-0.2 mm).

8-29. ASSEMBLY OF CASSETTE HOUSING

1. Drive Gear and R Drive angle ass'y

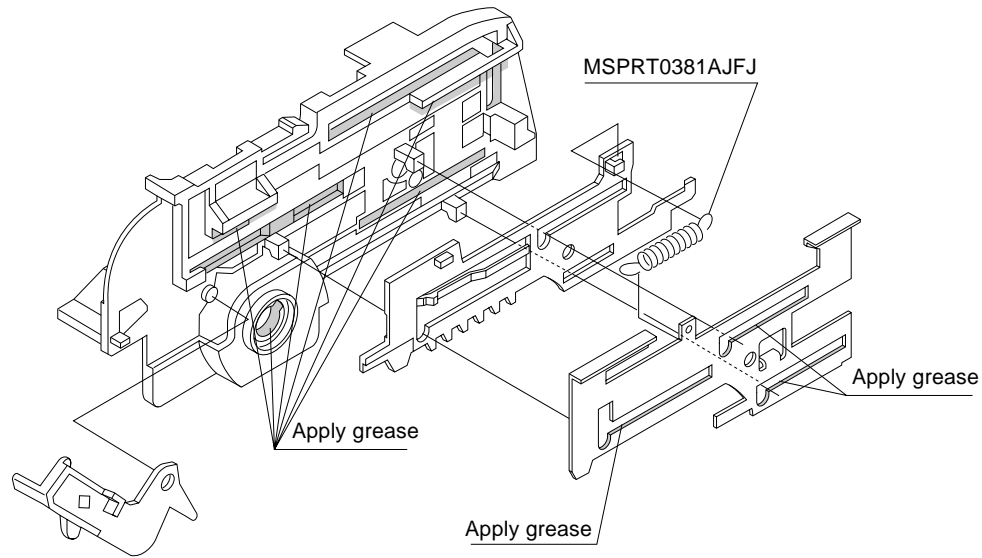


Figure 8-48.

2. Synchro Gear, Drive Gear L and Drive Gear R

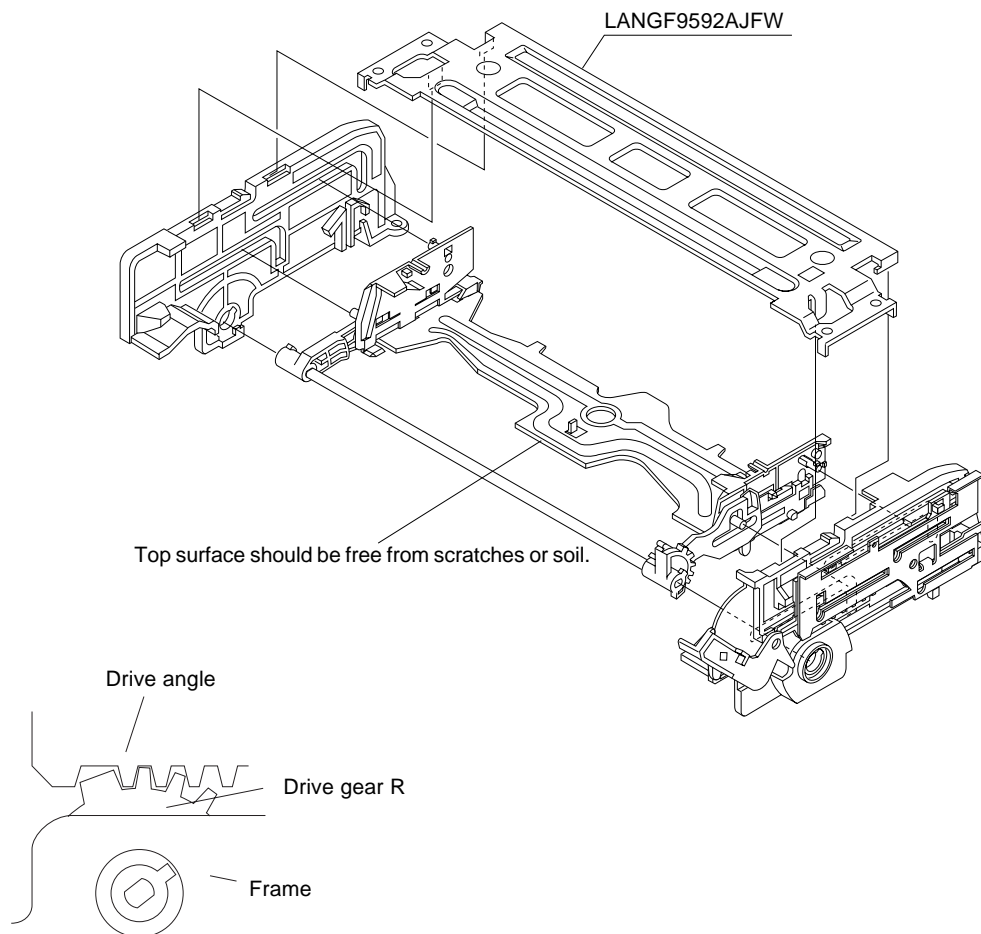


Figure 8-49.

9. ELECTRICAL ADJUSTMENT

Notes:

- Before the adjustment:
Electrical adjustments discussed here are often required after replacement of electronic components and mechanical parts such as video heads.
Check that the mechanism and all electric components are in good working condition prior to the adjustments, otherwise adjustments can not be completed.
- Instruments required:
 - ⊙ Colour TV monitor
 - ⊙ Dual-trace oscilloscope
 - ⊙ Alignment tape (VROCPSV)
 - ⊙ Blank video cassette tape
 - ⊙ DC voltmeter
 - ⊙ Screwdriver for adjustment
- ✂ Servicing precautions
When the IC705 (E²PROM) has been replaced, make the following reprogramming. Depending on models, the IC705 (E²PROM) has been factory-adjusted for its memory function.
It's therefore necessary to reprogram the memory function for the model in question.
Note that the servo circuit requires readjustments for the head switching point, slow and still modes.

- **Location of controls and test points**

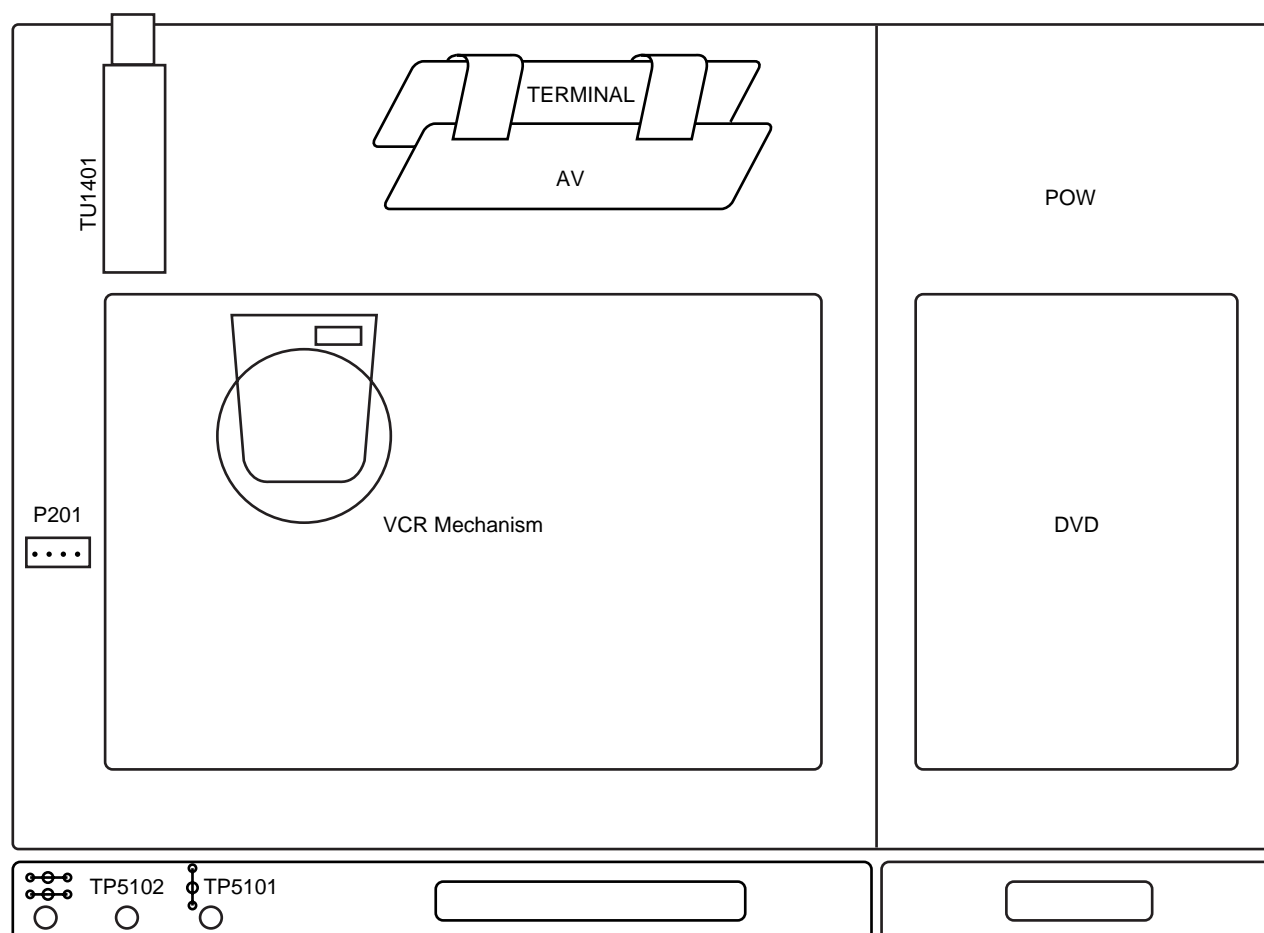


Figure 9-1.

SERVO CIRCUIT ADJUSTMENT

ADJUSTMENT OF HEAD SWITCHING POINT

Measuring instrument	Dual-trace oscilloscope Colour TV monitor
Mode	Playback
Cassette	Alignment tape (VROCPSV)
Test point	Pin(2) of P201 (H.S.W.P.) to CH-1, VIDEO OUT jack to CH-2 (CH-1 trigger slope switch at (+), Internal trigger at CH-1 side.)
Specification	$6.5 \pm 0.5H$ (lines)

1. Remove the front panel and play the alignment tape. (VROCPSV)
2. Press the PLAY button.
(Playback picture on the monitor screen.)
3. Make for a moment short-circuit TP5101-TP5103, located at the left side on the VCR display PWB.
Be sure that all the fluorescent display tubes light up into the TEST mode.(See Note below)
Be sure the "PLAY" appears in the fluorescent display tubes flashing (about 1Hz) into the auto PG adjustment operating.

Note:

When the manual PG adjustment, observe the waveform with an oscilloscope and make adjustment FF or REW button so that the specification.

4. Stop the "PLAY" appears in the flashing of fluorescent display tubes at adjusted.
5. Press the STOP button in the return to normal mode.
6. Make this checking of waveform on the oscilloscope screen be as shown in Figure 9-2. just after the head switching point have been adjusted.

Note:

- ① Set-up of TEST mode.
When the adjustment of HEAD SWITCHING POINT, AUTO TRACKING function is invalid.
- ② When the cassette housing control ass'y is removed, set-up of mechanism operating mode.
- 1) Replug the AC power cord it a few minutes later.
- 2) Make a short-circuit TP5102-TP5103 located at the front side on the main PWB, and press both tracking control button at the same time to set the tracking in center.
- 3) AC power cord is plugged in.
- 4) You can mechanism operating mode, Replug the AC power cord a few minutes later.

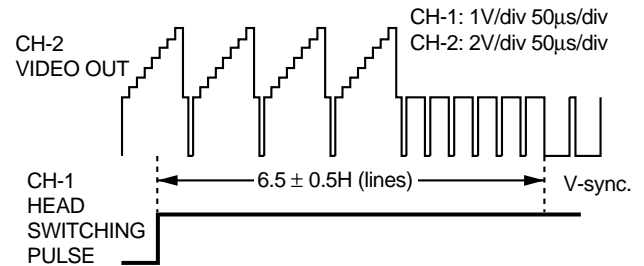


Figure 9-2.

ADJUSTMENT OF PAL SYSTEM SP/LP/EP SLOW TRACKING PRESET

Measuring instrument	Colour TV monitor
Mode	Playback
Cassette	Self-recorded tape (SP/LP/EP mode)(See Note below)
Control	Tracking control buttons (+) or (–)
Specification	Minimized noise on monitor screen

1. Have the unit to receive a good TV broadcast or feed a video signal to the VIDEO IN jack. (See note ② below)
2. Set the tape speed in SP mode by using the remote control and record the signal on tape.
3. Rewind and play the tape where signal was recorded in above step.
4. Press the SLOW button on the remote control, and playback the recorded portion in the slow mode.
5. Make for a moment short-circuit TP5101-TP5103, located at the front side on the main PWB.
Be sure that all the fluorescent display tubes light up into the TEST mode.
6. Look at the monitor screen and adjust the (+) or (–) TRACKING buttons so that the there is noise disappears from the screen.
7. Press the STOP button to return to normal mode.
8. Play the tape a few seconds then press the SLOW button again and make sure there is on noise in the screen.(For the LP/EP mode put adjustment at the same adjustmet way as SP mode.)

Notes:

- ① Self-recorded tape means a cassette whose program was recorded by the unit being adjusted.
- ② The TV program will not be recorded if RCA or 21pin plugs are plugged in to the AUDIO/VIDEO input terminals.

ADJUSTMENT OF PAL SYSTEM FV(False Vertical Sync) OF STILL PICTURE

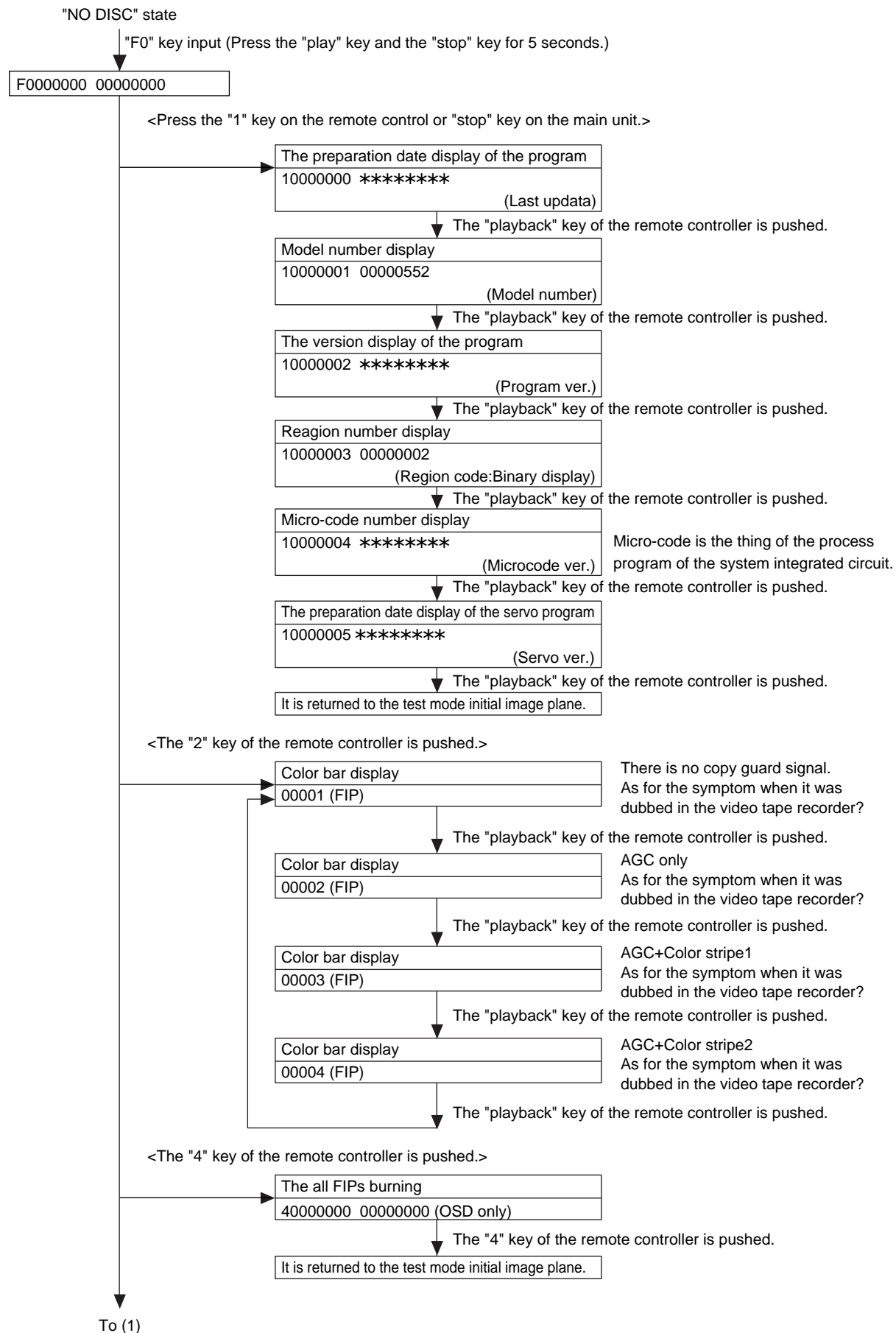
Measuring instrument	Colour TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP mode) (See Note below ②)
Control	Tracking control buttons (+) or (–)
Specification	No vertical jitter of picture

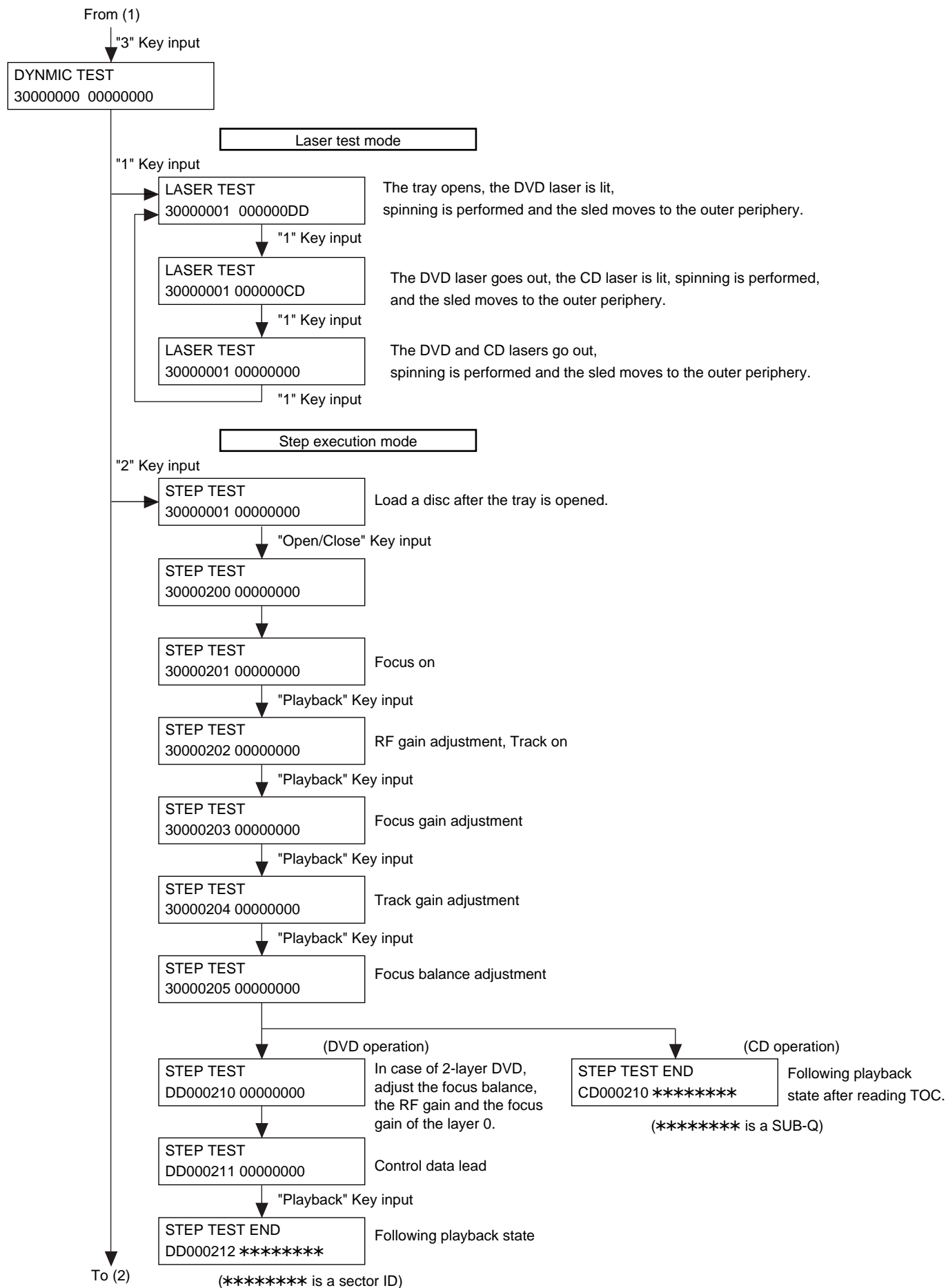
1. Play a cassette which was recorded by the unit in SP mode.
2. Press the PAUSE/STILL button to freeze the picture.
3. Look at the monitor screen and adjust (+) or (–) TRACKING buttons so that the vertical jitter of the picture to be minimized.
4. Play and freeze the self-recorded tape in SP mode and make sure vertical jitter of the picture is not noticeable.(For the LP/EP mode put adjustment at the same adjustment way as SP mode.)

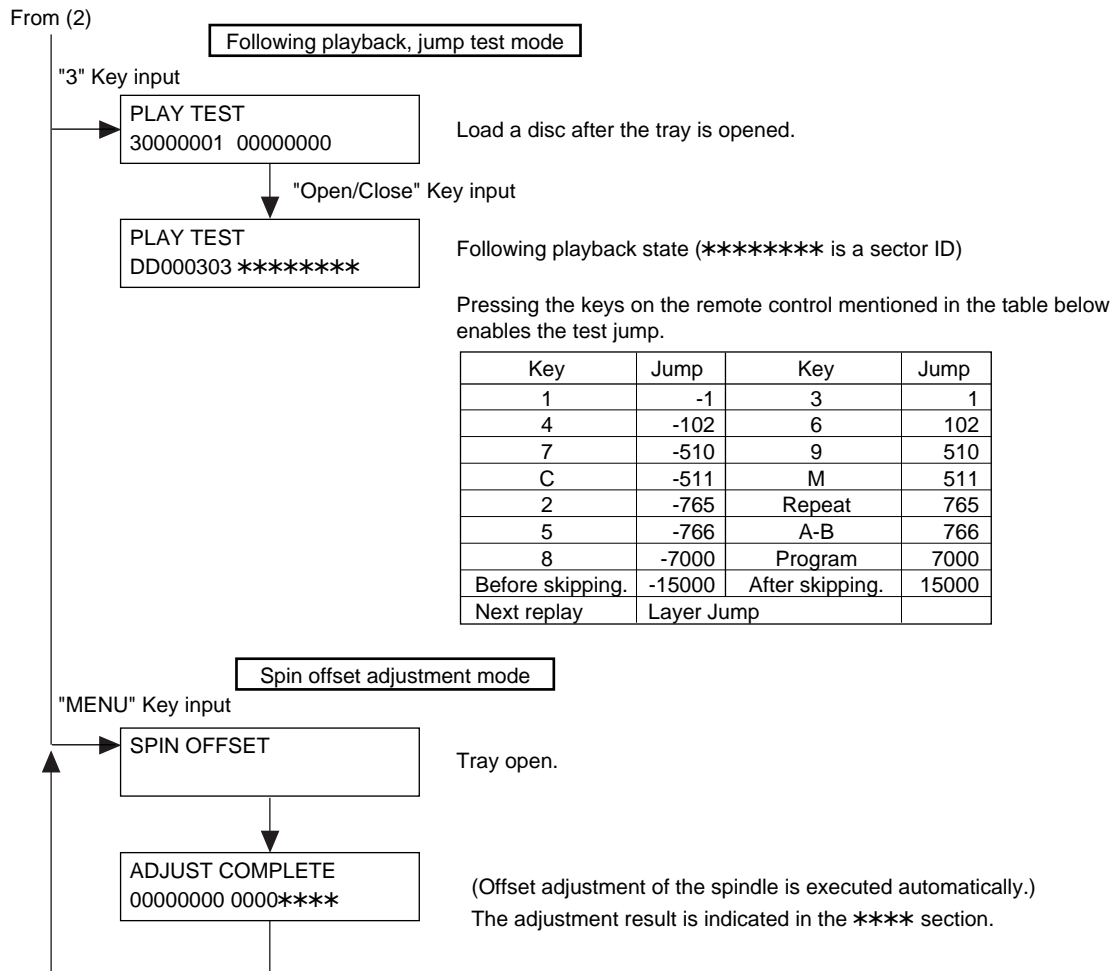
Note:

- ① The FV goes back to the it's initial state when the unit is put into the system controller reset mode due to power failure, etc.
In this case, preset the FV once again.
- ② Self-recorded tape is a cassette whose program was recorded by the unit being adjusted.

10. TEST MODE







[ROM RENEWAL MODE]

1. A DVD itself and a personal computer are articulated as the right figure. Software for the renewal is started more.
2. A power source is put with pushing a DVD's own playback key and a halt key at the same time. (It keeps pushing it for about three seconds.)

R : OK It is displayed.

3. When "Y" is inputted in accordance with the personal computer display and data transfer indication is shown and renewal process is started normally when an ENTER key is pushed.

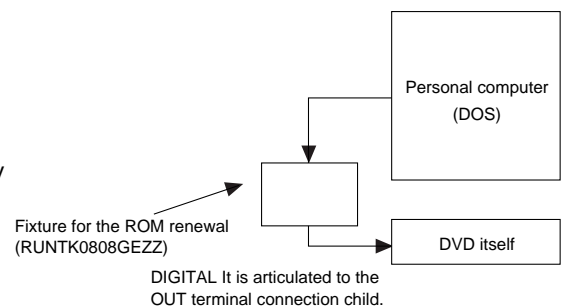
W : STR It is displayed.

4. When renewal is completed normally.

W : END It is displayed.

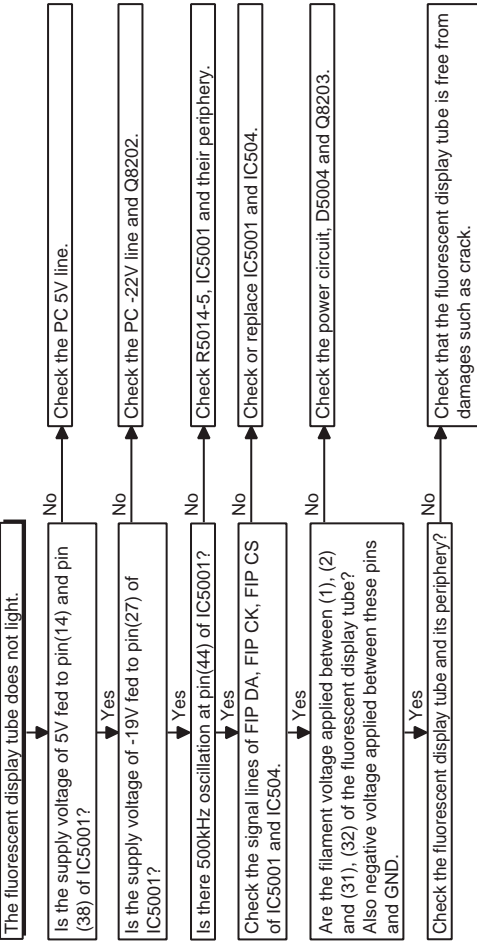
5. "STOP" key is surely pushed if renewal is completed and the display of above NO.4 is confirmed. It is made to turn off POWER after that.

PART CODE	Price Code
RUNTK0808GEZZ	CD

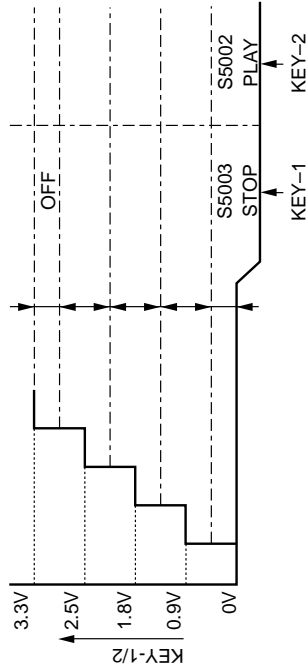
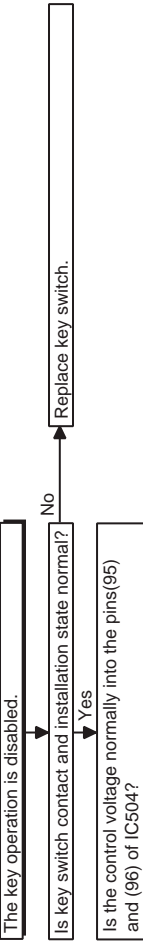


11. TROUBLESHOOTING (DVD)

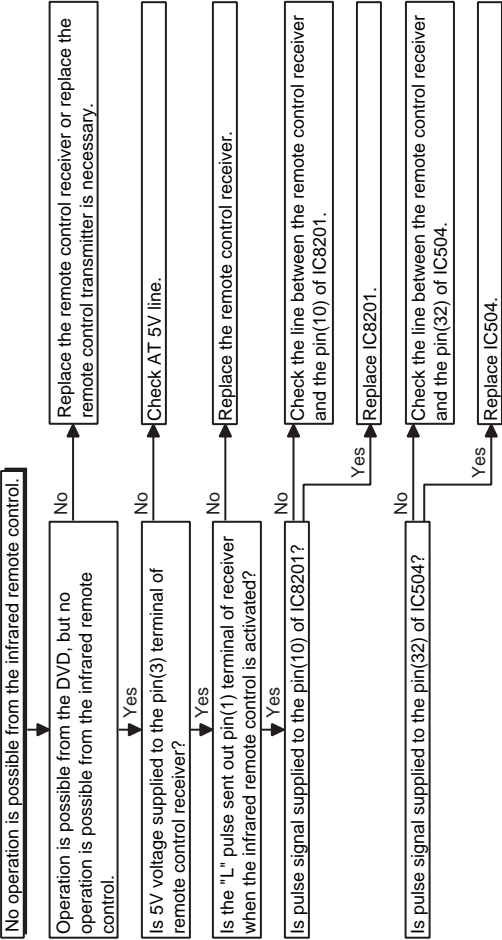
FLOW CHART NO.1



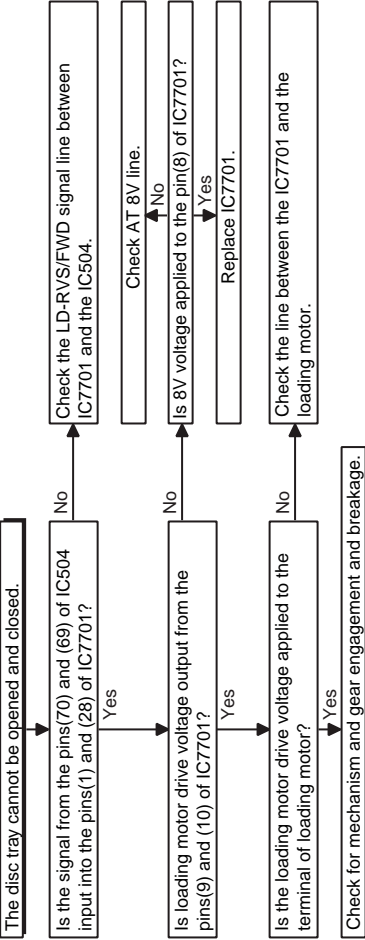
FLOW CHART NO.2



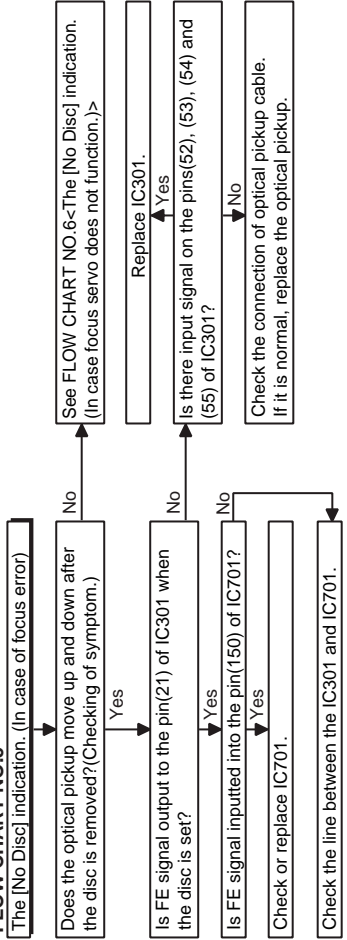
FLOW CHART NO.3



FLOW CHART NO.4

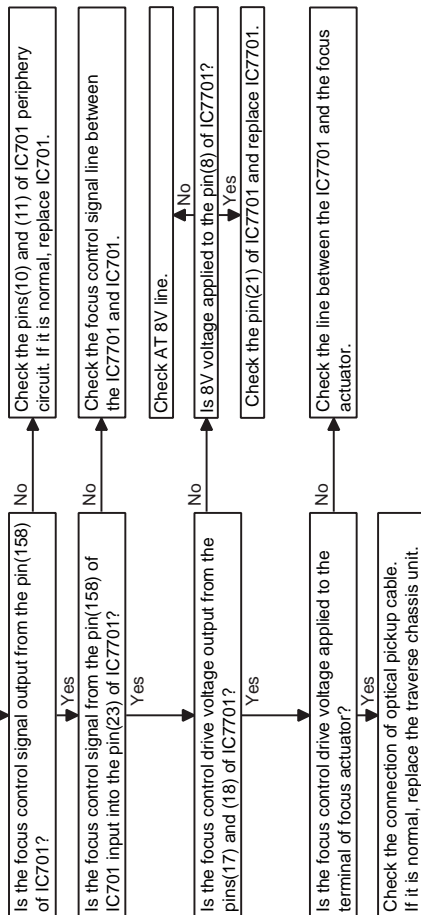


FLOW CHART NO.5



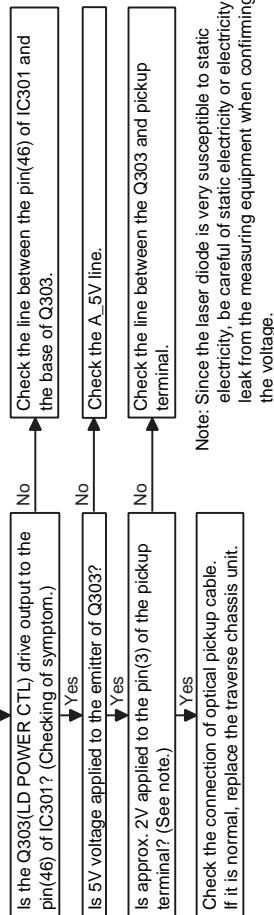
FLOW CHART NO.6

The [No Disc] indication. (In case focus servo does not function.)



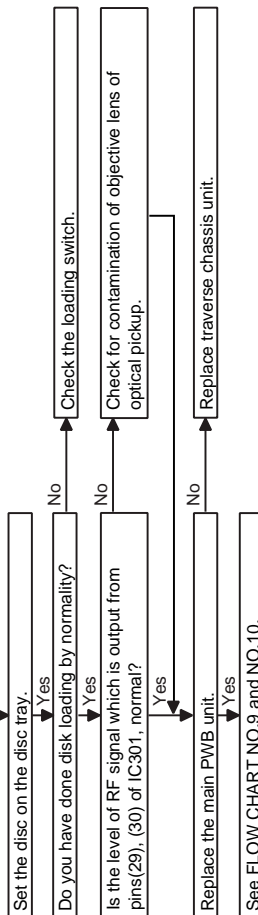
FLOW CHART NO.7

The [No Disc] indication. (When the laser beam does not light.)



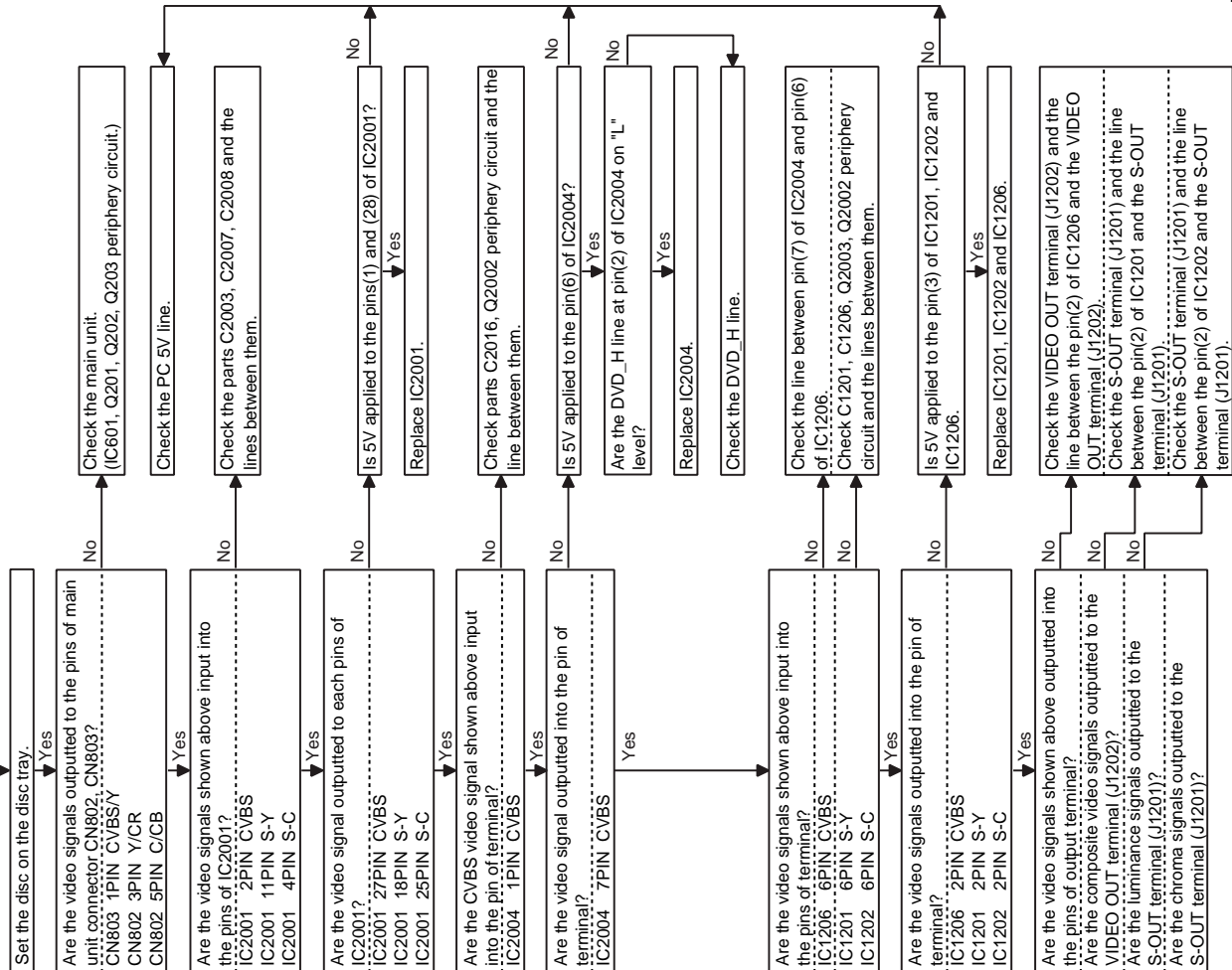
FLOW CHART NO.8

Both picture and sound do not operate normally.(1)



FLOW CHART NO.9

Picture do not operate normally.



FLOW CHART NO.10

Sound do not operate normally.

Set the disc on the disc tray.

Are the digital audio interface signals outputted to the pins of main unit connector CN801?
CN801 3PIN AMCLK
CN801 4PIN ABCLK
CN801 5PIN ALRCLK
CN801 6PIN AOUT0

No

Check the main unit. (IC601 periphery circuit.)

Are the digital audio interface signals inputted to the pins of IC6001?
IC6001 5PIN AMCLK
IC6001 3PIN ABCLK
IC6001 1PIN ALRCLK
IC6001 2PIN AOUT0

Yes

Check the line between the pins of main unit connector CN801 and the pins of IC6001.
CN801 3PIN → IC6001 5PIN AMCLK
CN801 4PIN → IC6001 3PIN ABCLK
CN801 5PIN → IC6001 1PIN ALRCLK
CN801 6PIN → IC6001 2PIN AOUT0

Are the system control interface signals outputted to the pins of main unit connector CN801?
CN801 10PIN ADAC DA
CN801 11PIN ADAC CK
CN801 12PIN ADAC L
CN801 16PIN RSTO I

Yes

Check the main unit. (IC504 periphery circuit.)

Are the system control interface signals inputted to the pins of IC6001?
IC6001 26PIN ADAC DA
IC6001 27PIN ADAC CK
IC6001 28PIN ADAC L
IC6001 22PIN RSTO I

Yes

Check the line between the pins of main unit connector CN801 and the pins of IC6001.
CN801 10PIN → IC6001 26PIN ADAC DA
CN801 11PIN → IC6001 27PIN ADAC CK
CN801 12PIN → IC6001 28PIN ADAC L
CN801 16PIN → IC6001 22PIN RSTO I

Are the audio interface signals outputted to the pins of IC6001?
IC6001 16PIN L OUT
IC6001 13PIN R OUT

Yes

Check the PC 3.3V line and PC 5V line.

No

Is 3.3V applied to the pin(7) and 5.5V applied to the pins(10), (15) and (19) of the IC6001?
Check or replace IC6001.

Yes

Check the line between the pins of IC6001 and the pins of IC6004.
IC6001 16PIN → IC6004 3PIN L OUT
IC6001 13PIN → IC6004 5PIN R OUT

Are the audio interface signals inputted to the pins of IC6004?
IC6004 3PIN L OUT
IC6004 5PIN R OUT

Yes

Check the PC 9V line.

No

Is 9V applied to the pin(8) of IC6004?
Check or replace IC6004.

Yes

Are the audio interface signals outputted to the pins of IC6004?
IC6004 1PIN L OUT
IC6004 7PIN R OUT

Yes

Check the line between the pins of IC6001 and the pins of IC6004.
IC6001 16PIN → IC6004 3PIN L OUT
IC6001 13PIN → IC6004 5PIN R OUT

No

Check the PC 9V line.

No

Is 9V applied to the pin(8) of IC6004?
Check or replace IC6004.

Yes

Check the line between the pins of IC6001 and the pins of IC6004.
IC6001 16PIN → IC6004 3PIN L OUT
IC6001 13PIN → IC6004 5PIN R OUT

No

Check the PC 9V line.

No

Is 9V applied to the pin(8) of IC6004?
Check or replace IC6004.

Yes

Check the line between the pins of IC6001 and the pins of IC6004.
IC6001 16PIN → IC6004 3PIN L OUT
IC6001 13PIN → IC6004 5PIN R OUT

No

Check the PC 9V line.

No

*1

Are the audio interface signals inputted to the pins of IC6010?
IC6010 2PIN L OUT
IC6010 12PIN R OUT

No

Check the line between the pins of IC6010 and the pins of IC6004 and the sound mute periphery circuit. (Q6007-8.)
IC6004 1PIN → IC6010 2PIN L OUT
IC6004 7PIN → IC6010 12PIN R OUT

Yes

Are the audio interface signals outputted to the pins of IC6010?
IC6010 15PIN L OUT
IC6010 14PIN R OUT

Yes

Is 9V applied to the pin(16) of IC6010?
Are the pins(9), (10) and (11) of IC6010 on "L" level?
Replace IC6010.
Check the DVD-H line and Q6010.

No

Are the audio interface signals inputted to the pins of IC6011?
IC6011 3PIN L OUT
IC6011 5PIN R OUT

No

Check the line between the pins of IC6010 and the pins of IC6011.
IC6010 15PIN → IC6011 3PIN L OUT
IC6010 14PIN → IC6011 5PIN R OUT

Yes

Are the audio interface signals outputted to the pins of IC6011?
IC6011 1PIN L OUT
IC6011 7PIN R OUT

No

Is 9V applied to the pin(8) of IC6011?
Replace IC6011.

Yes

Are the audio signals input to the pins of IC2501?
IC2501 2PIN L OUT
IC2501 1PIN R OUT

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the pins of IC2501?
IC2501 42PIN L OUT
IC2501 43PIN R OUT

No

Is 5V and 12V applied to the pins of IC2501?
IC2501 PIN(24) & (29) → AT5V
IC2501 PIN(4) → AT12V

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

Yes

Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?

No

Check the line between the pins of IC2501 and the pins of IC6011 and the sound mute periphery circuit (Q6011-12).
IC6011 1PIN → IC2501 2PIN L OUT
IC6011 7PIN → IC2501 1PIN R OUT

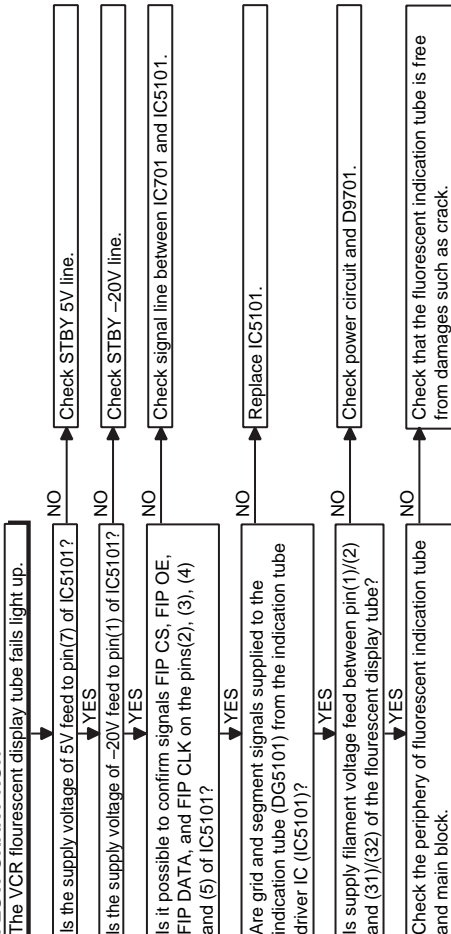
Yes

*2

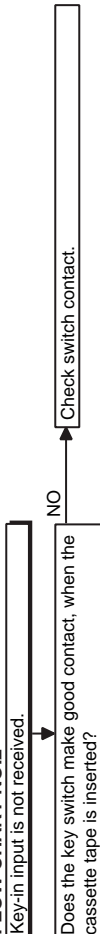
*3

(VCR)

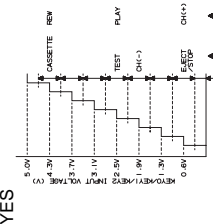
FLOW CHART NO.1



FLOW CHART NO.2

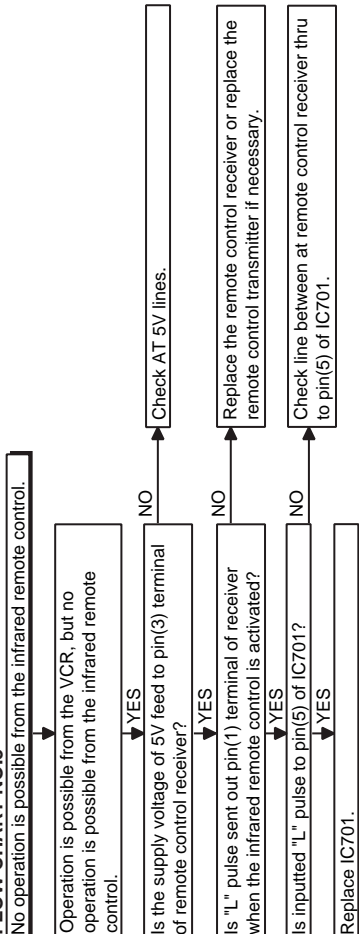


47

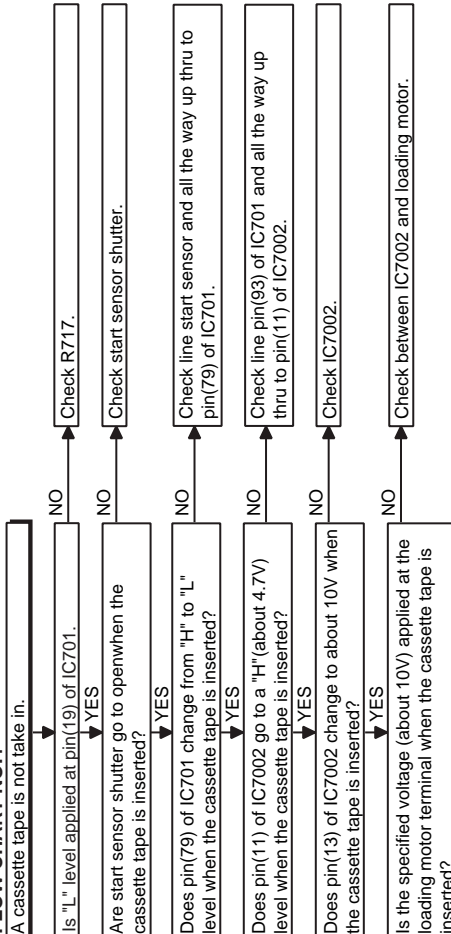


Check or place the peripheral circuit of IC701.

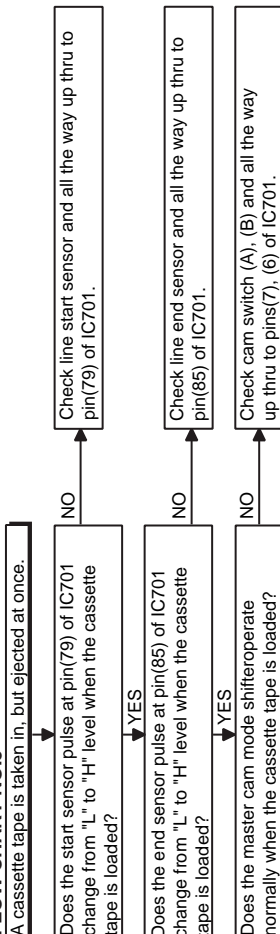
FLOW CHART NO.3



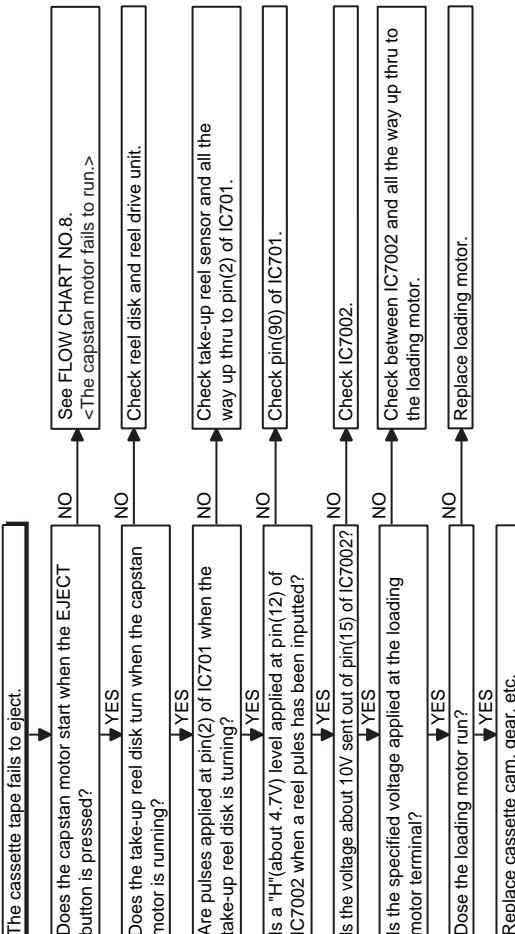
FLOW CHART NO.4



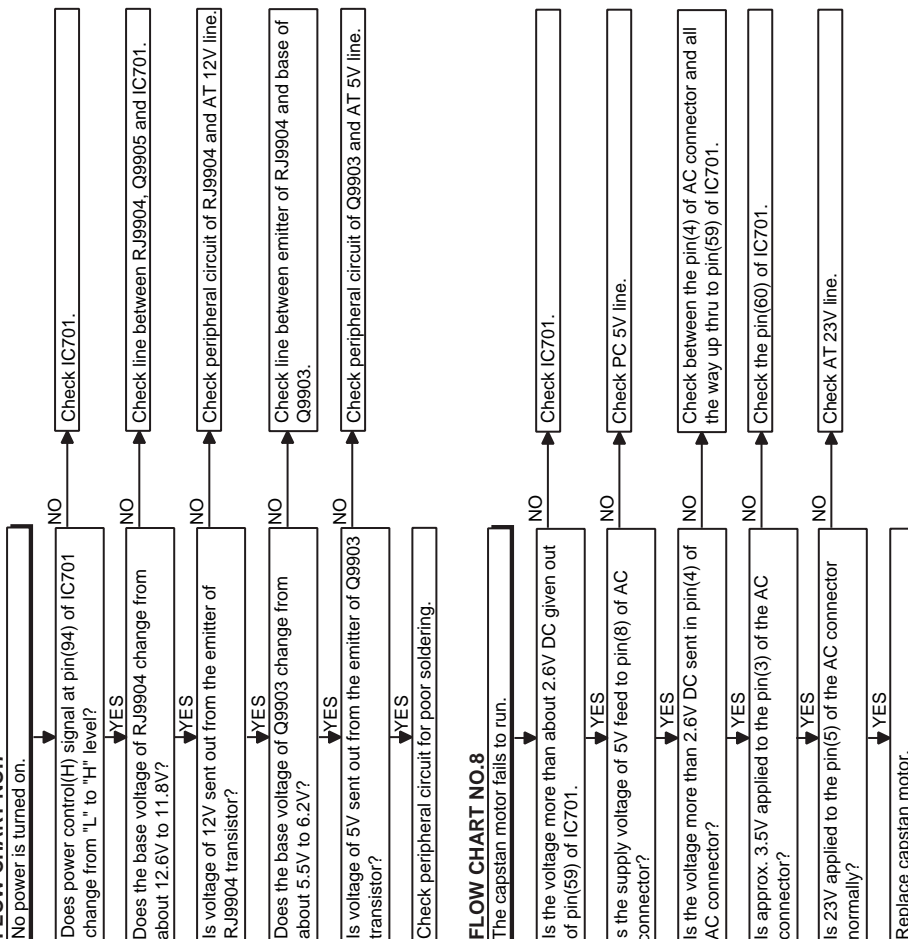
FLOW CHART NO.5



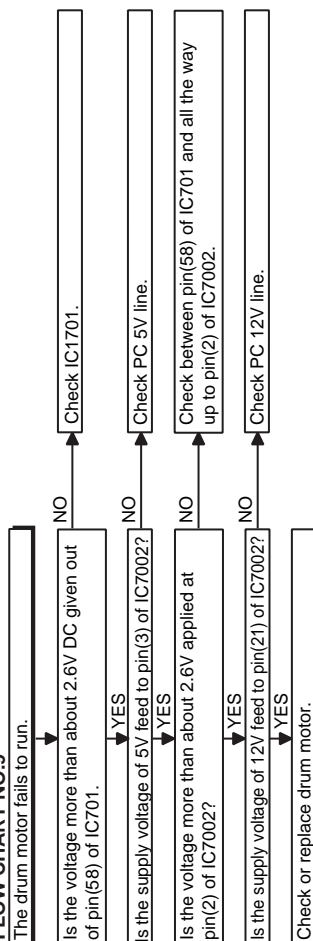
FLOW CHART NO.6



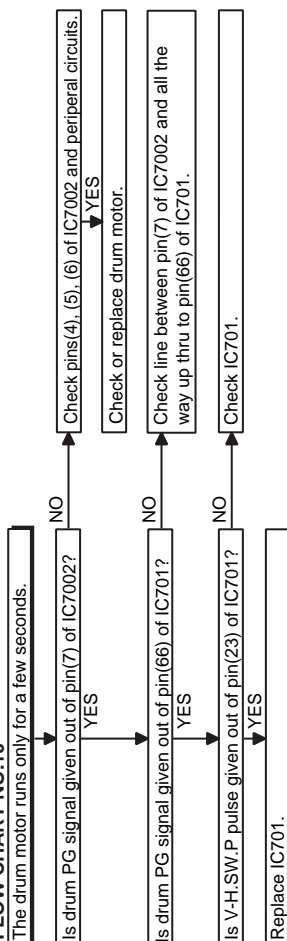
FLOW CHART NO.7



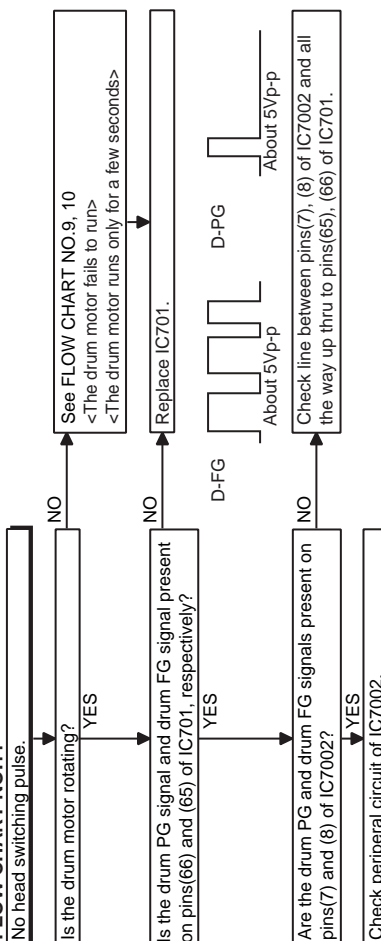
FLOW CHART NO.9



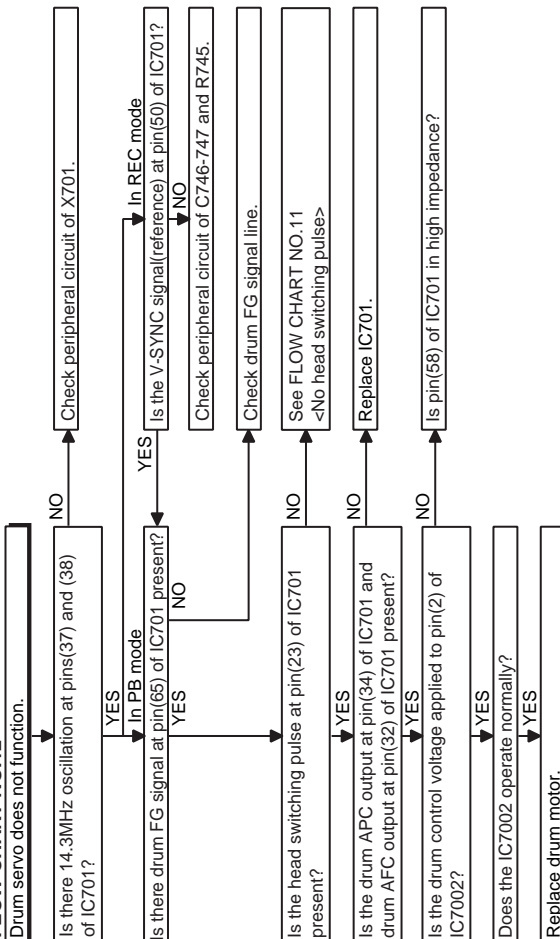
FLOW CHART NO.10



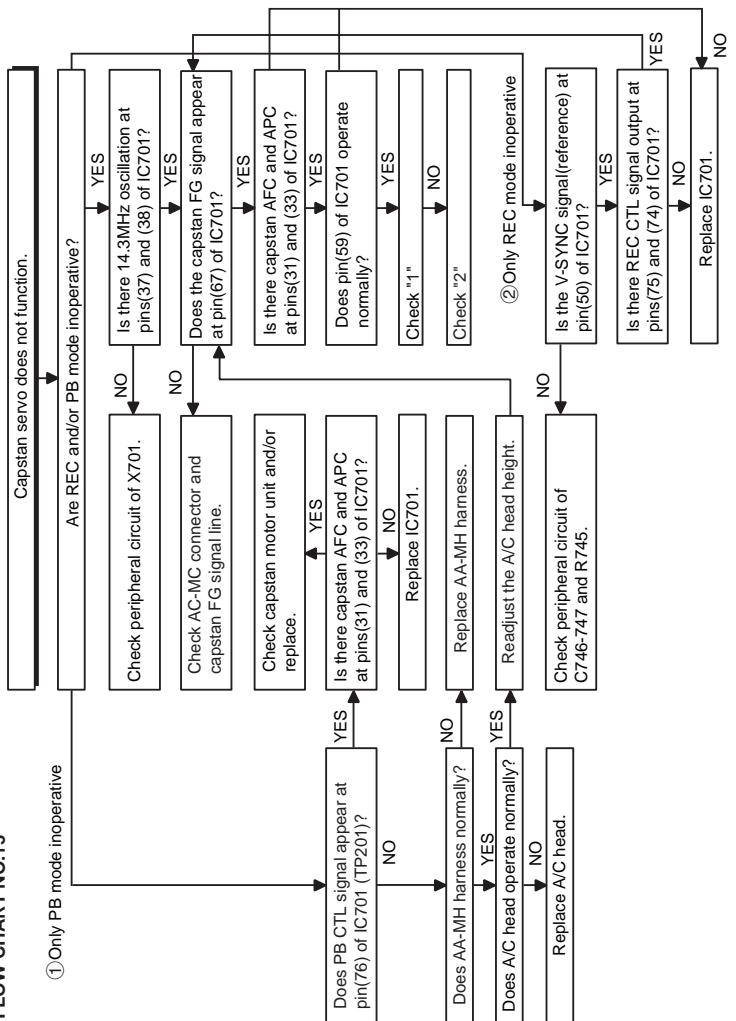
FLOW CHART NO.11



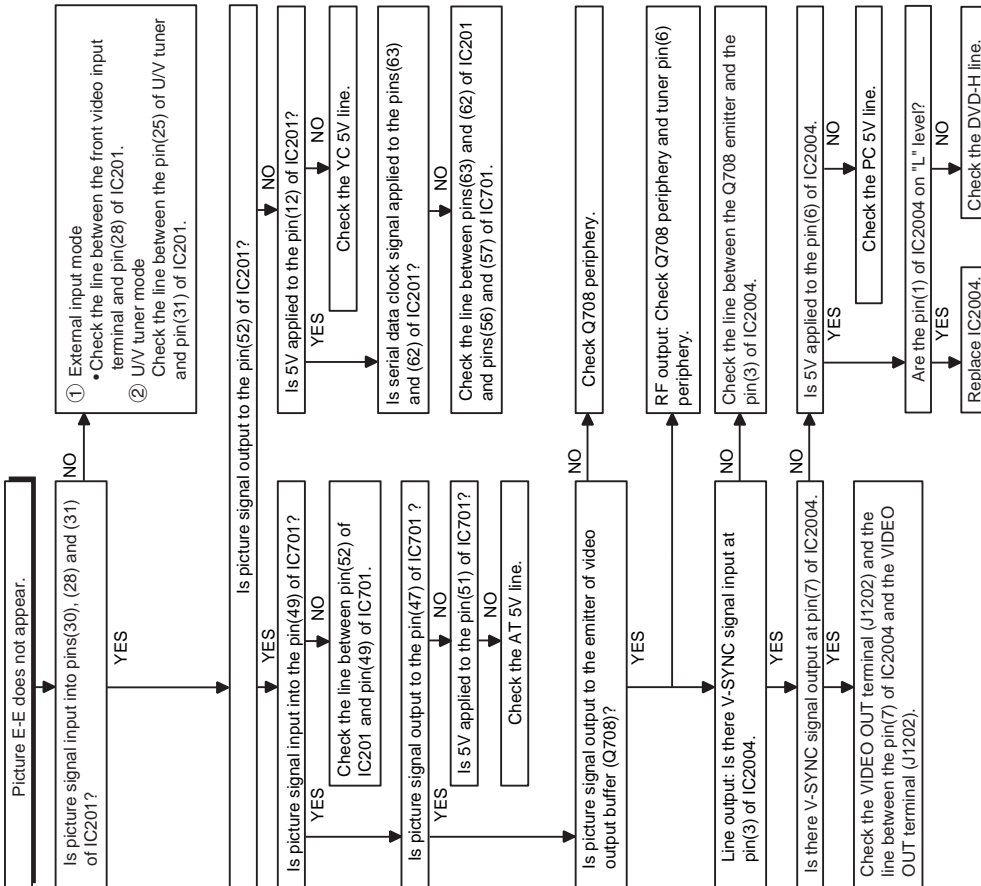
FLOW CHART NO.12



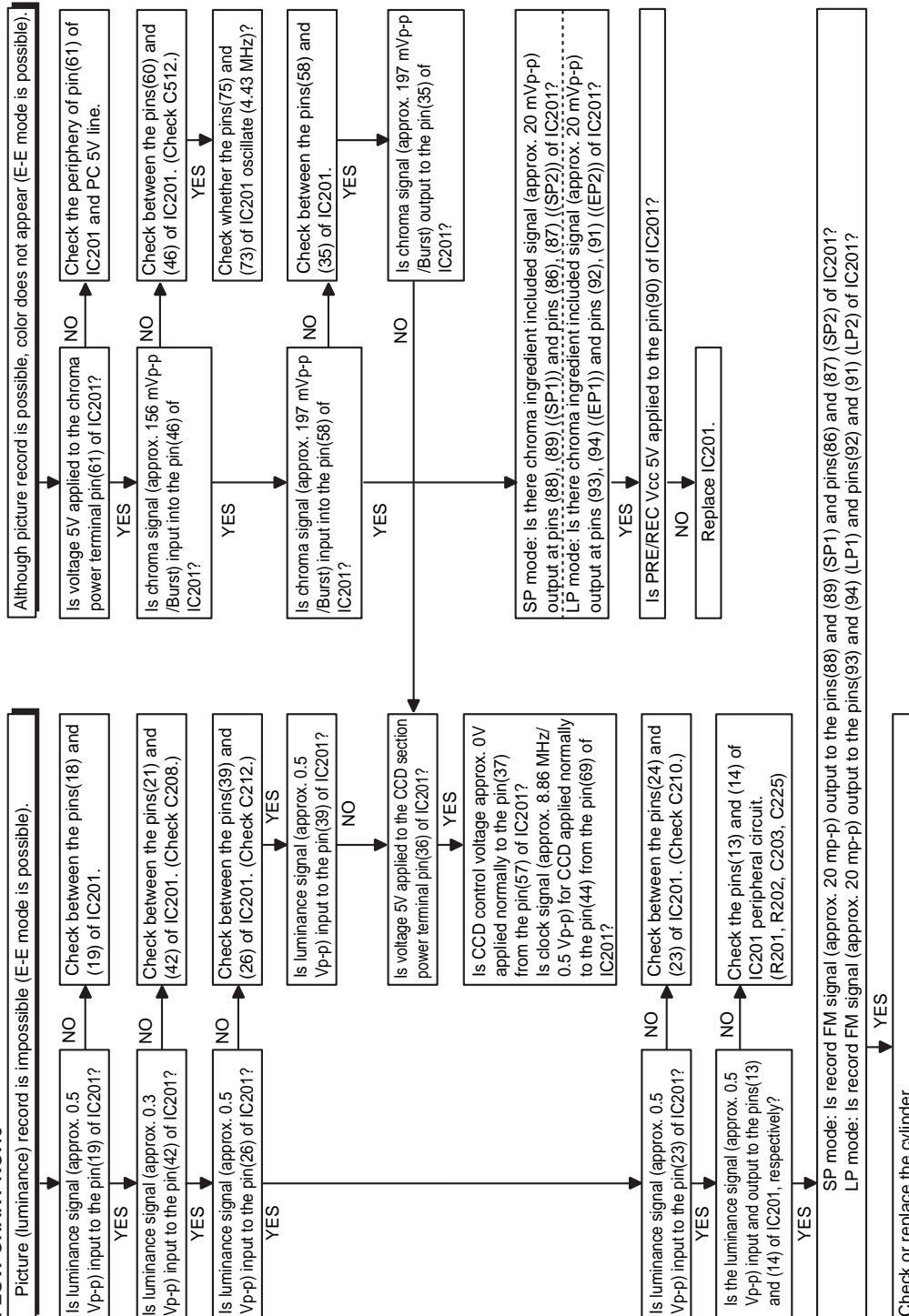
FLOW CHART NO.13



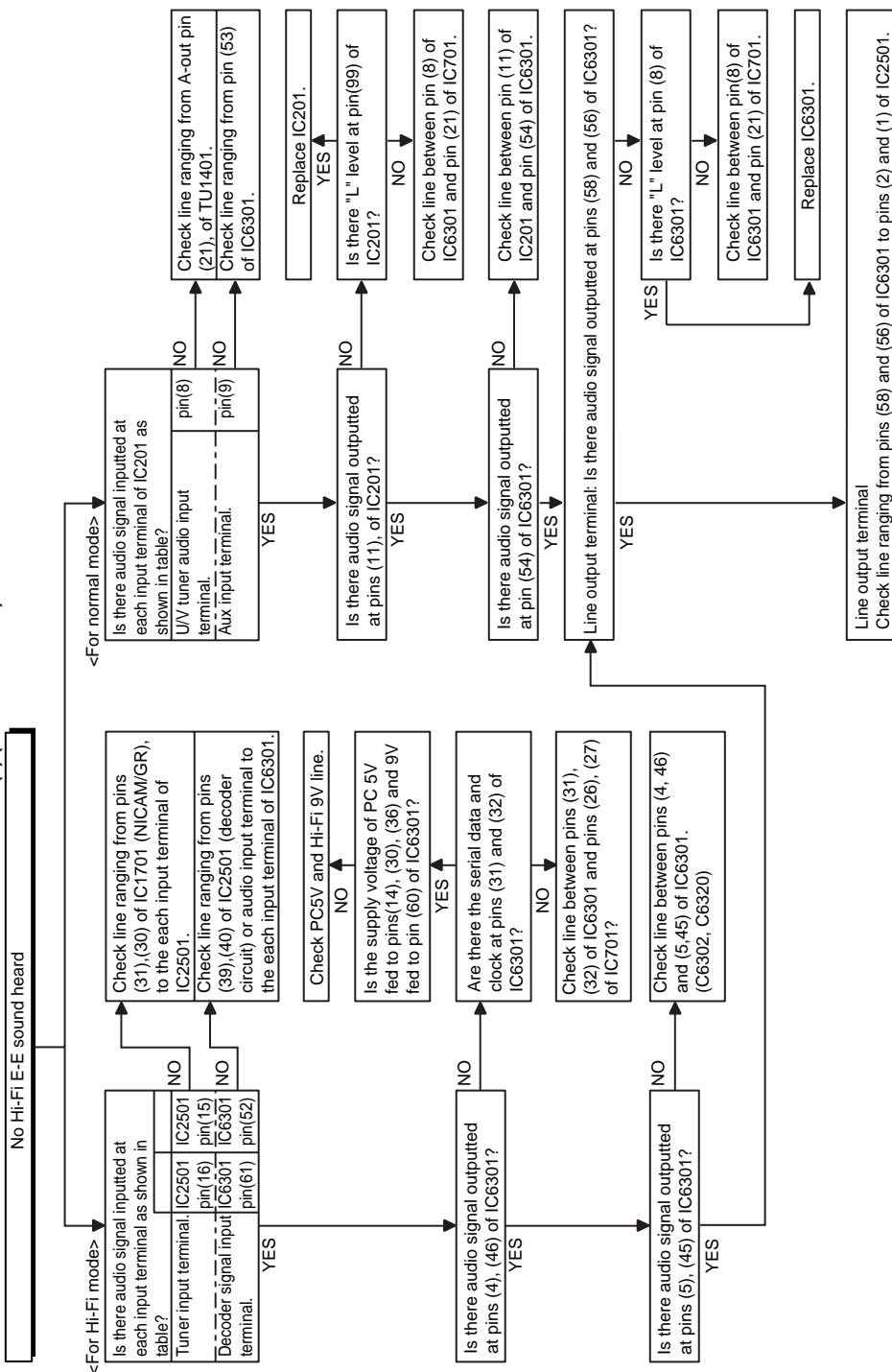
FLOW CHART NO.14



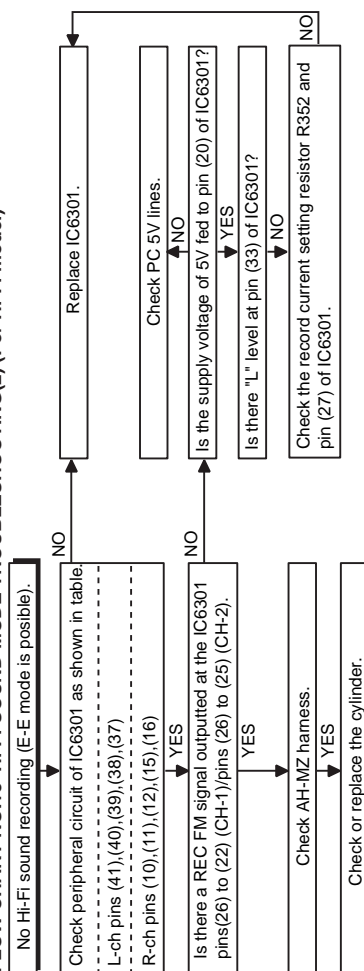
FLOW CHART NO.15



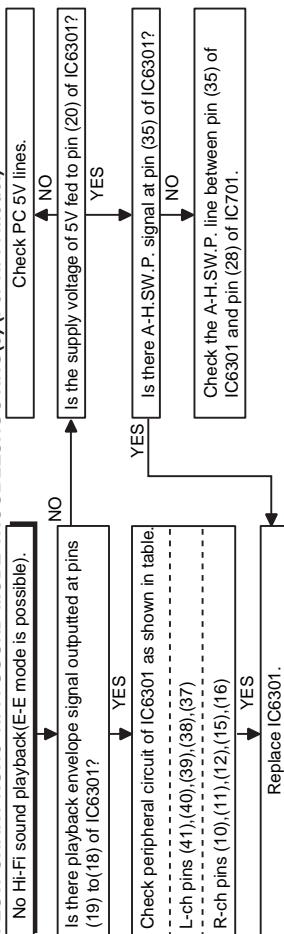
FLOW CHART NO.17 HI-FI SOUND MODE TROUBLESHOOTING(1) (For Hi-Fi model)



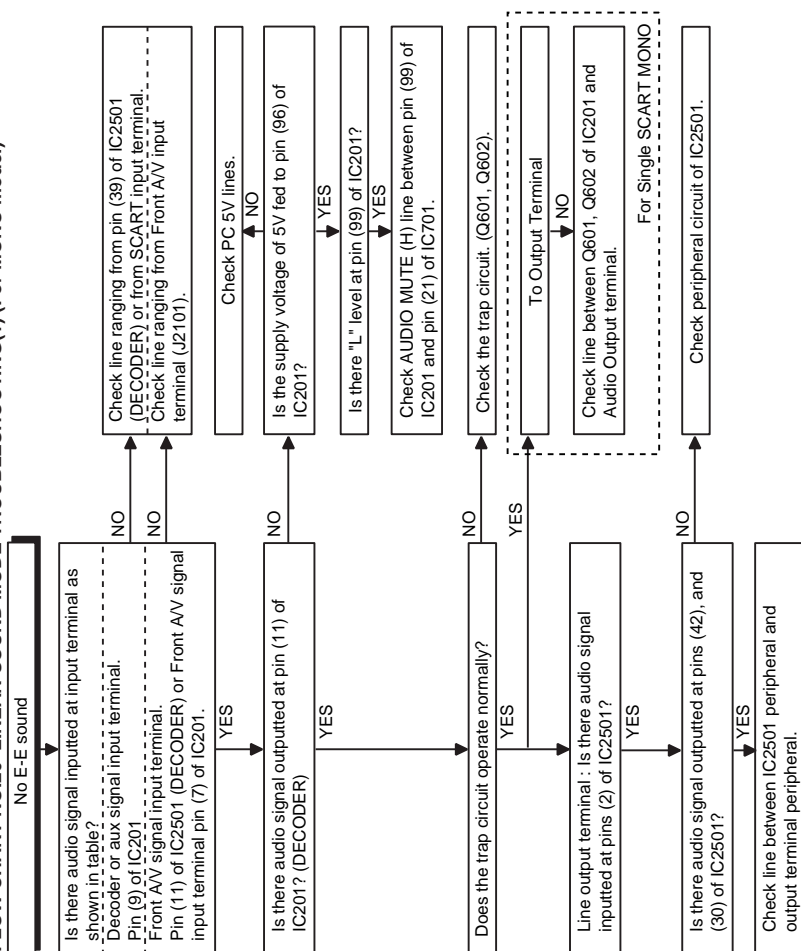
FLOW CHART NO.18 HI-FI SOUND MODE TROUBLESHOOTING(2) (For Hi-Fi model)



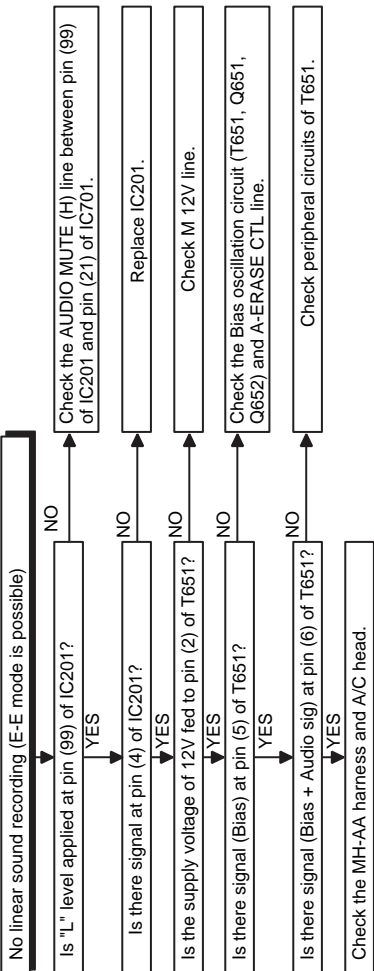
FLOW CHART NO.19 HI-FI SOUND MODE TROUBLESHOOTING(3) (For Hi-Fi model)



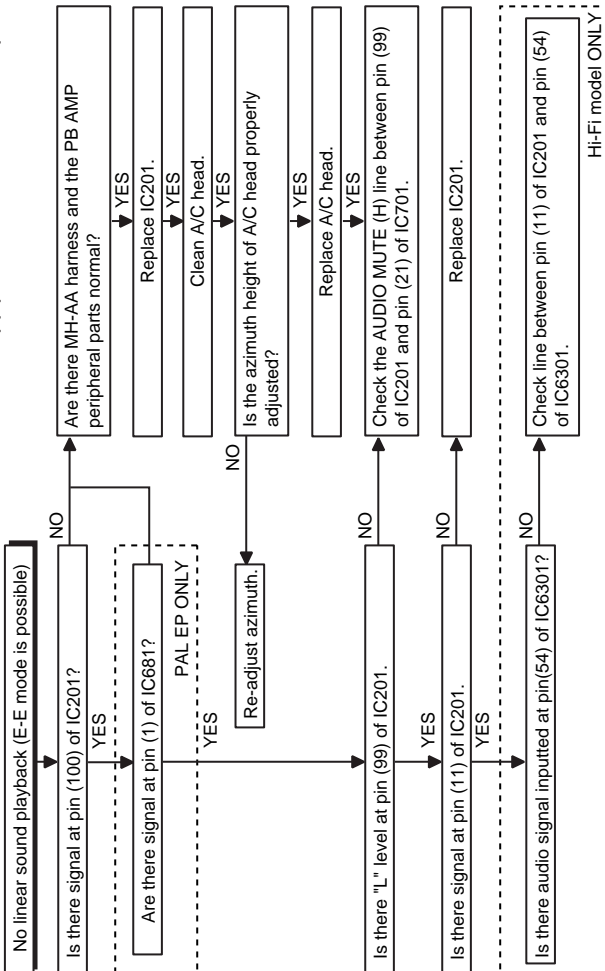
FLOW CHART NO.20 LINEAR SOUND MODE TROUBLESHOOTING(1) (For MONO model)



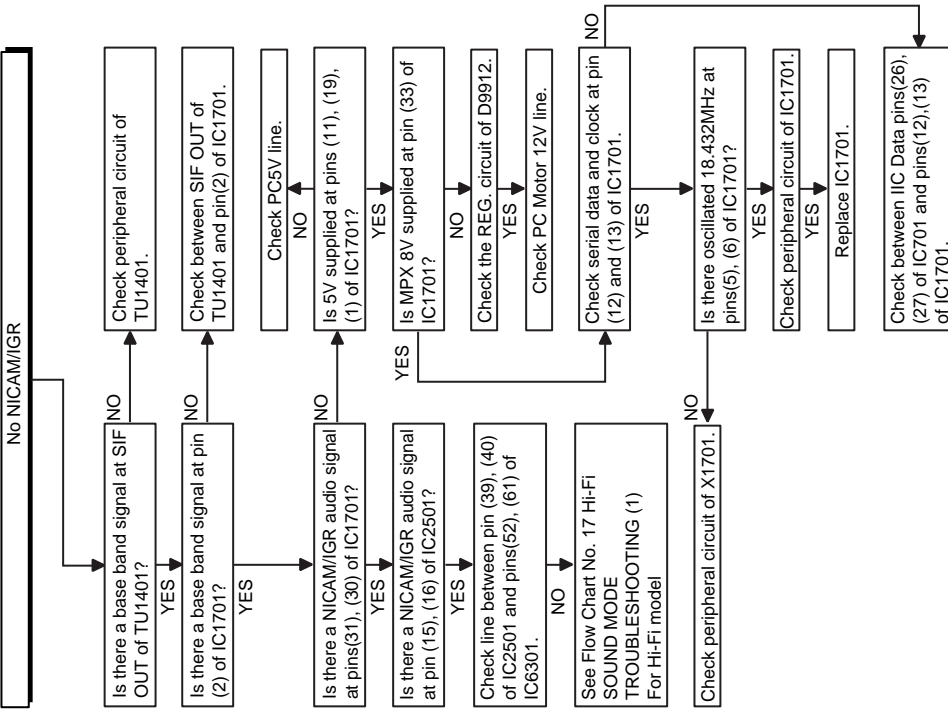
FLOW CHART NO.21 LINEAR SOUND MODE TROUBLESHOOTING(2) (For Hi-Fi and MONO model)

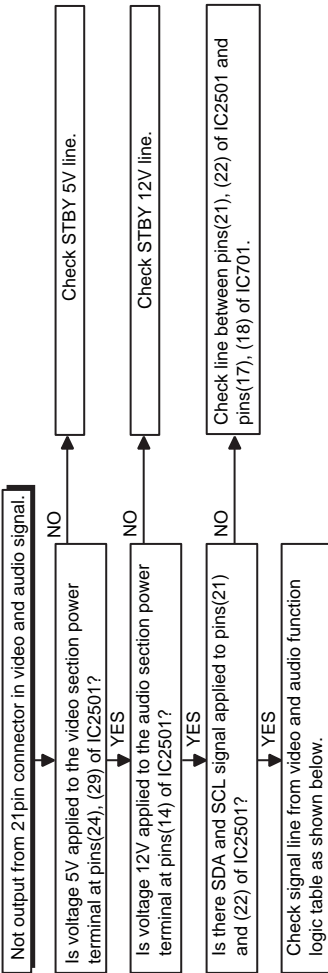


FLOW CHART NO.22 LINEAR SOUND MODE TROUBLESHOOTING(3) (For Hi-Fi and MONO model)



FLOW CHART NO.23 NICAM/IGR TROUBLESHOOTING (For Hi-Fi model)



FLOW CHART NO.24 DECODER TROUBLESHOOTING (For 2 SCART Hi-Fi and MONO model)

<Linear Audio Double scart>

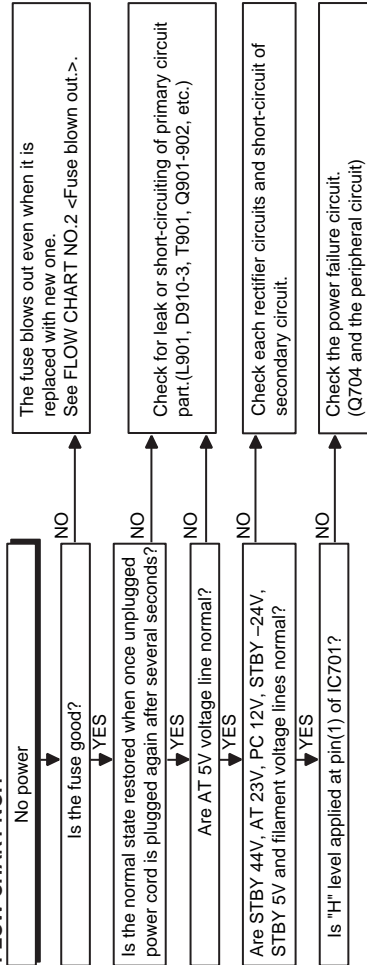
MODE SELECT	INPUT SIGNAL	SIG. FLOW	DECODER CIRCUIT INPUT (switch)	OUTPUT	SIG. FLOW	OUTPUT SIGNAL
(A)	Pin47 of IC701(Y/C video output)	>	pin7	pin25	>	E1(L1) video output 21PIN CONNECTOR
(B)	E2(L2) video input	>	pin28	pin25	>	E1(L1) video output 21PIN CONNECTOR
(C)	Front video input	>	pin13	pin25	>	E1(L1) video output 21PIN CONNECTOR
(A)	Pin11 of IC201 (Audio output)	>	pin2	pin42	>	E1(L1) audio output(L/R-ch) 21PIN CONNECTOR
(B)	E2(L2) audio input(L/R-ch)	>	pin33	pin42	>	E1(L1) audio output(L/R-ch) 21PIN CONNECTOR
(C)	Front audio input	>	pin11	pin42	>	E1(L1) audio output(L/R-ch) 21PIN CONNECTOR
(A)	Tuner video output	>	pin18	pin26	>	E2(L2) video output 21PIN CONNECTOR
(B)	E1(L1) video input	>	pin23	pin26	>	E2(L2) video output 21PIN CONNECTOR
(C)	Pin47 of IC701(Y/C video output)	>	pin7	pin30	>	E2(L2) video output(L/R-ch) 21PIN CONNECTOR
(A)	Tuner audio output	>	pin16	pin30	>	E2(L2) video output(L/R-ch) 21PIN CONNECTOR
(B)	E1(L1) audio input(L/R-ch)	>	pin36	pin30	>	E2(L2) video output(L/R-ch) 21PIN CONNECTOR
(C)	Pin11 of IC201(Audio output)	>	pin2	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(A)	E2(L2) video input	>	pin28	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(B)	E1(L1) video input	>	pin23	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(C)	Tuner video output	>	pin18	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(D)	Front video input	>	pin13	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(A)	E2(L2) audio input (L/R-ch)	>	pin33	pin39	>	Pin61 of IC6301 (Aux. input)
(B)	E1(L1) audio input (L/R-ch)	>	pin36	pin39	>	Pin61 of IC6301 (Aux. input)
(C)	Tuner audio output (L/R-ch)	>	pin16	pin39	>	Pin61 of IC6301 (Aux. input)
(D)	Front audio input	>	pin11	pin39	>	Pin61 of IC6301 (Aux. input)

<Hi-Fi Audio Double scart>

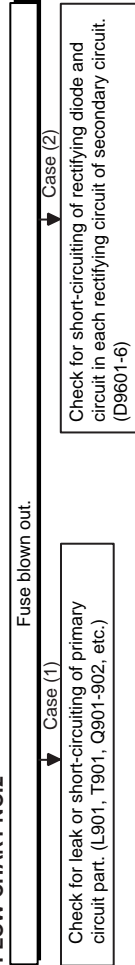
MODE SELECT	INPUT SIGNAL	SIG. FLOW	DECODER CIRCUIT INPUT (switch)	OUTPUT	SIG. FLOW	OUTPUT SIGNAL
(A)	Pin47 of IC701(Y/C video output)	>	pin7	pin25	>	E1(L1) video output 21PIN CONNECTOR
(B)	E2(L2) video input	>	pin28	pin25	>	E1(L1) video output 21PIN CONNECTOR
(C)	Front video input	>	pin13	pin25	>	E1(L1) video output 21PIN CONNECTOR
(A)	Pin58 of IC6301 (Audio output L-ch)	>	pin2	pin42	>	E1(L1) audio output(L-ch) 21PIN CONNECTOR
(B)	E2(L2) audio input(L/R-ch)	>	pin33	pin42	>	E1(L1) audio output(L-ch) 21PIN CONNECTOR
(C)	Front audio L-ch input	>	pin11	pin42	>	E1(L1) audio output(L-ch) 21PIN CONNECTOR
(A)	Pin56 of IC6301(Audio output R-ch)	>	pin1	pin43	>	E1(L1) audio output(R-ch) 21PIN CONNECTOR
(B)	E2(L2) audio input(R-ch)	>	pin34	pin43	>	E1(L1) audio output(R-ch) 21PIN CONNECTOR
(C)	Front audio R-ch input	>	pin10	pin43	>	E1(L1) audio output(R-ch) 21PIN CONNECTOR
(A)	Tuner video output	>	pin18	pin26	>	E2(L2) video output(L-ch) 21PIN CONNECTOR
(B)	E1(L1) video input	>	pin23	pin26	>	E2(L2) video output(L-ch) 21PIN CONNECTOR
(C)	Pin47 of IC701(Y/C video output)	>	pin7	pin30	>	E2(L2) audio output(L-ch) 21PIN CONNECTOR
(A)	MPX output(L-ch)	>	pin16	pin30	>	E2(L2) audio output(L-ch) 21PIN CONNECTOR
(B)	E1(L1) audio input(L-ch)	>	pin36	pin30	>	E2(L2) audio output(L-ch) 21PIN CONNECTOR
(C)	Pin58 of IC6301(Audio output L-ch)	>	pin2	pin31	>	E2(L2) audio output(R-ch) 21PIN CONNECTOR
(A)	MPX output(R-ch)	>	pin15	pin31	>	E2(L2) audio output(R-ch) 21PIN CONNECTOR
(B)	E1(L1) audio input(R-ch)	>	pin37	pin31	>	E2(L2) audio output(R-ch) 21PIN CONNECTOR
(C)	Pin56 of IC6301(Audio output R-ch)	>	pin1	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(A)	E2(L2) video input	>	pin28	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(B)	E1(L1) video input	>	pin23	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(C)	Tuner video output	>	pin18	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(D)	Front video input	>	pin13	pin5	>	Pin31 of IC201 Y/C video input (Aux. input)
(A)	E2(L2) audio input (L-ch)	>	pin33	pin39	>	Pin61 of IC6301 (Aux. input)
(B)	E1(L1) audio input (L-ch)	>	pin36	pin39	>	Pin61 of IC6301 (Aux. input)
(C)	MPX output(L-ch)	>	pin16	pin39	>	Pin61 of IC6301 (Aux. input)
(D)	Front audio L-ch input	>	pin11	pin39	>	Pin61 of IC6301 (Aux. input)
(A)	E2(L2) audio input (R-ch)	>	pin34	pin40	>	Pin52 of IC6301 (Audio input (R-ch))
(B)	E1(L1) audio input (R-ch)	>	pin37	pin40	>	Pin52 of IC6301 (Audio input (R-ch))
(C)	MPX output (R-ch)	>	pin15	pin40	>	Pin52 of IC6301 (Audio input (R-ch))
(D)	Front audio R-ch input	>	pin10	pin40	>	Pin52 of IC6301 (Audio input (R-ch))

(POWER)

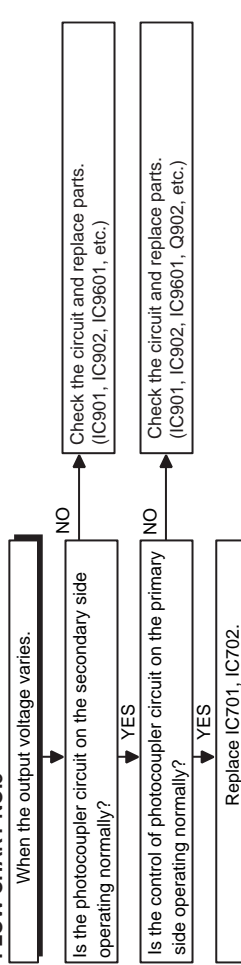
FLOW CHART NO.1



FLOW CHART NO.2



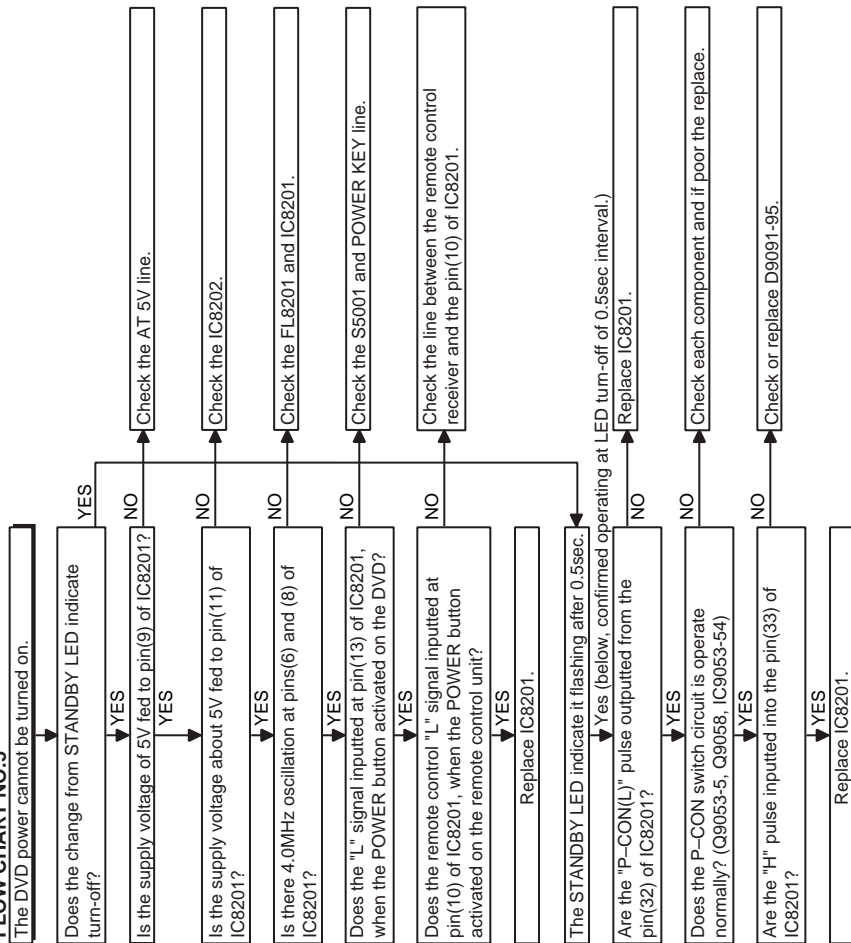
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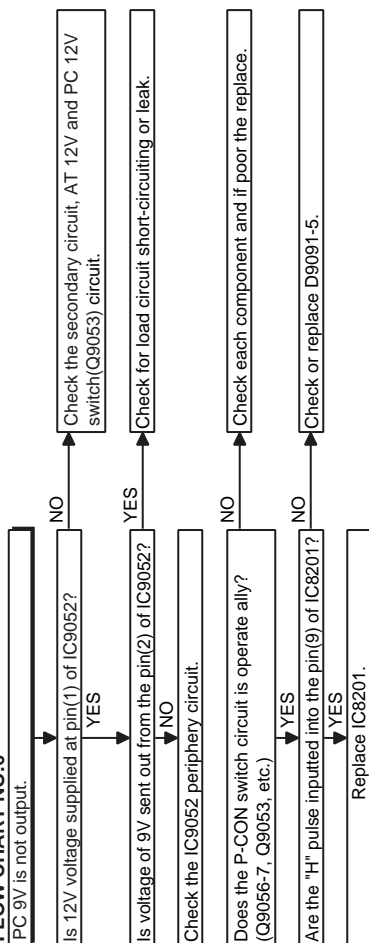
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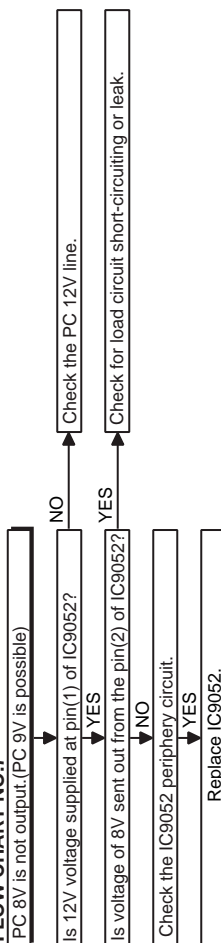
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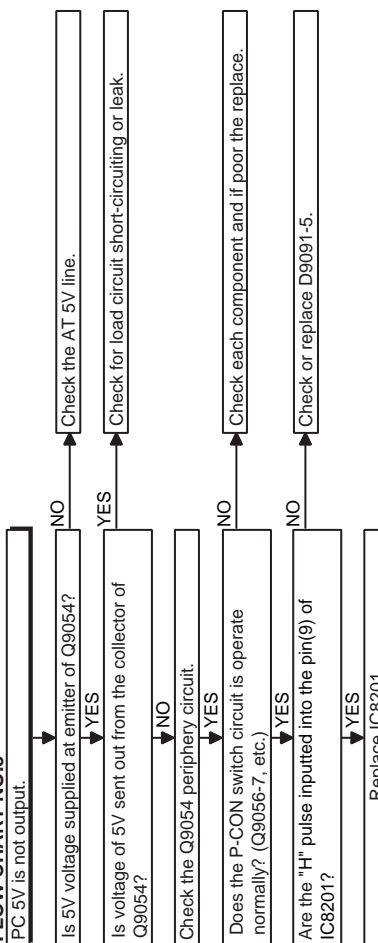
FLOW CHART NO.6



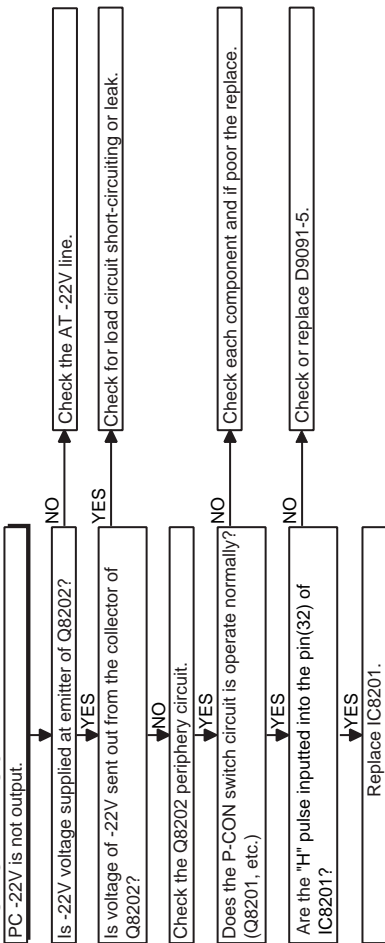
FLOW CHART NO.7



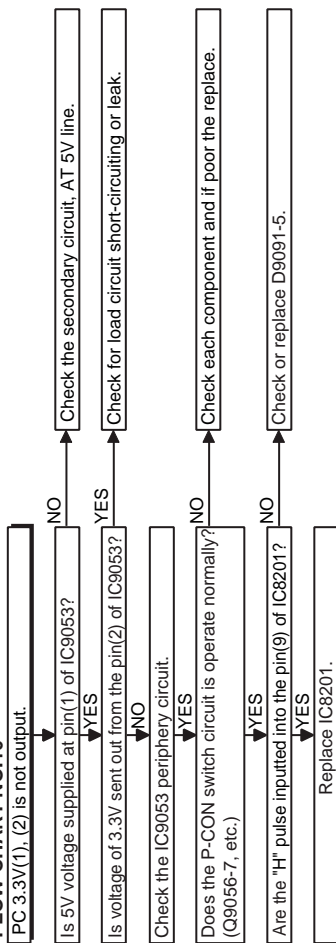
FLOW CHART NO.8



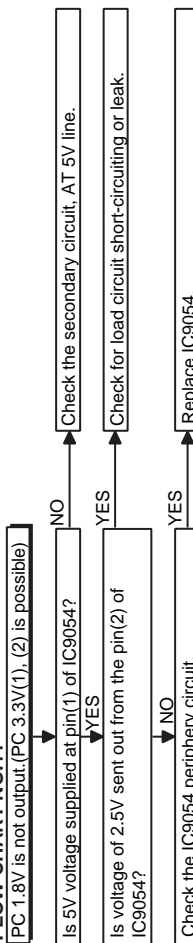
FLOW CHART NO.9



FLOW CHART NO.10



FLOW CHART NO.11



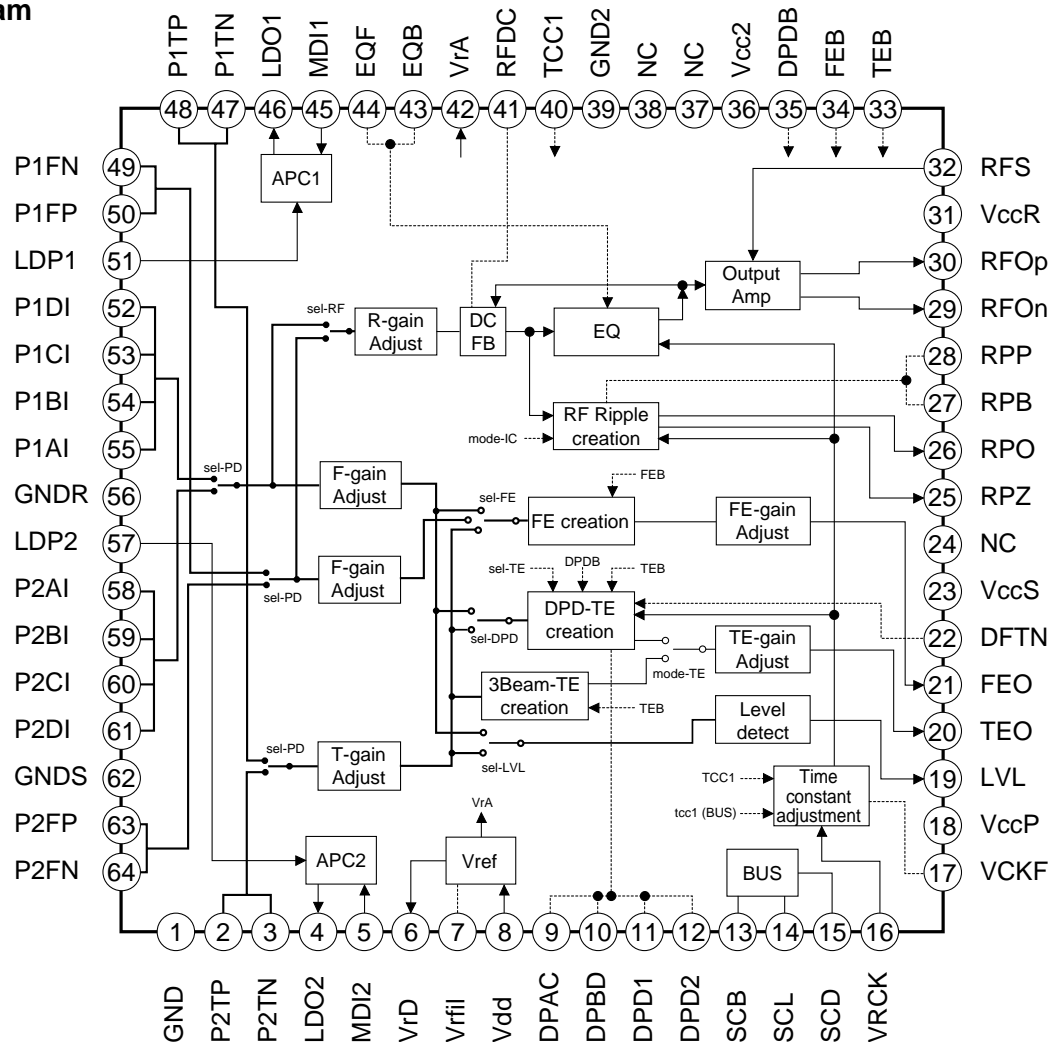
12. IC FUNCTION LIST

12-1. IC301 TA1323F RF PROCESSOR

Pin No.	Terminal name	I/O	Operation function	Terminal DC Voltage(TYP.)	Remarks
1	GND	–	GND terminal.	–	
2	P2TP	I	TE+input (CD)	VrA	
3	P2TN	I	TE–input (CD)	VrA	
4	LDO2	O	Drive ouput 2	–	
5	MDI2	I	Monitor input 2	–	
6	VrD	O	Digital VREF	–	Vdd/2 output (1.65V)
7	Vrfil	–	Filter capacity for reference	–	
8	Vdd	I	Power terminal	–	3.3V is connected.
9	DPAC	–	DPD AC combination capacity 1	–	
10	DPBD	–	DPD AC combination capacity 2	–	
11	DPD1	–	DPD integral capacity 1	–	
12	DPD2	–	DPD integral capacity 2	–	
13	SCB	I	Control line (Bit clock)	2.2[V]	
14	SCL	I	Control line (Latch signal)	2.2[V]	
15	SCD	I	Control line (Sirial Data)	2.2[V]	
16	VRCK	I	Reference clock input	2.3[V]	When frequency is increased, the filters excepting the servo LPF are shifted to high frequency side.
17	VCKF	–	Capacity for VRCK time constant adjustment	–	
18	VccP	–	Power terminal	–	
19	LVL	O	Servo addition output	VrD/2	
20	TEO	O	TE output	VrD	
21	FEO	O	FE output	VrD	
22	DFTN	I	DPD difect	–	Low DPD output: Mute
23	VccS	–	Power terminal (servo)	–	
24	NC	–	–	–	Used in the open state.
25	RPZ	O	RF ripple output 2	VrD	
26	RPO	O	RF ripple output 1	VrD/2	
27	RPB	–	RF ripple bottom	–	
28	RPP	–	RF ripple peak	–	
29	RFO _n	O	Equivalent RF output (Differential output)	1.65[V]	DC voltage varies by RFS.
30	RFO _p	O	Equivalent RF output (Differential output)	1.65[V]	DC voltage varies by RFS.
31	VccR	–	Power terminal (RF)	–	
32	RFS	I	RF slice level adjustment	–	
33	TEB	I	TE balance	VrD	When TEB is raised, the gain on the TP side and the delay amount on the A+C side are increased. Adjusting range: GND - Vdd
34	FEB	I	FE balance	VrD	When FEB is raised, the gain on the A+C (FP) side is increased. Adjusting range: GND - Vdd
35	DPDB	I	Pit depth adjustment	VrD	When DPDB is raised, the delay amount on the A•B side is increased. Adjusting range: GND - Vdd
36	Vcc2	–	Power terminal	–	
37	NC	–	–	–	Used in the open state.
38	NC	–	–	–	Used in the open state.
39	GND2	–	GND terminal.	–	
40	TCC1	I	Time constant adjustment	–	
41	RFDC	–	DC feedback capacity	–	
42	VrA	O	Analog VREF	2.1[V]	
43	EQB	I	Boost adjustment	VrD	When EQB is raised, the boost increases. Adjusting range: GND - Vdd

Pin No.	Terminal name	I/O	Operation function	Terminal DC Voltage(TYP.)	Remarks
44	EQF	I	Frequency adjustment	VrD	When EQF is raised, shift to the high frequency side occurs. Adjusting range: GND - Vdd
45	MDI1	I	Monitor input 1	—	
46	LDO1	O	Drive output 1	—	
47	P1TN	I	TE-input (DVD)	VrA	
48	P1TP	I	TE+input (DVD)	VrA	
49	P1FN	I	FE-input (DVD)	VrA	
50	P1FP	I	FE+input (DVD)	VrA	
51	LDP1	I	APC polarity 1	—	Positive polarity when this terminal is connected to Vcc.
52	P1DI	I	D input (DVD)	VrA	
53	P1CI	I	C input (DVD)	VrA	
54	P1BI	I	B input (DVD)	VrA	
55	P1AI	I	A input (DVD)	VrA	
56	GNDR	—	GND terminal (RF)	—	
57	LDP2	I	APC polarity 2	—	Positive polarity when this terminal is connected to Vcc.
58	P2AI	I	A input (CD)	VrA	
59	P2BI	I	B input (CD)	VrA	
60	P2CI	I	C input (CD)	VrA	
61	P2DI	I	D input (CD)	VrA	
62	GNDS	—	GND terminal (Servo)	—	
63	P2FP	I	FE+input (CD)	VrA	
64	P2FN	I	FE-input (CD)	VrA	

• Block Diagram

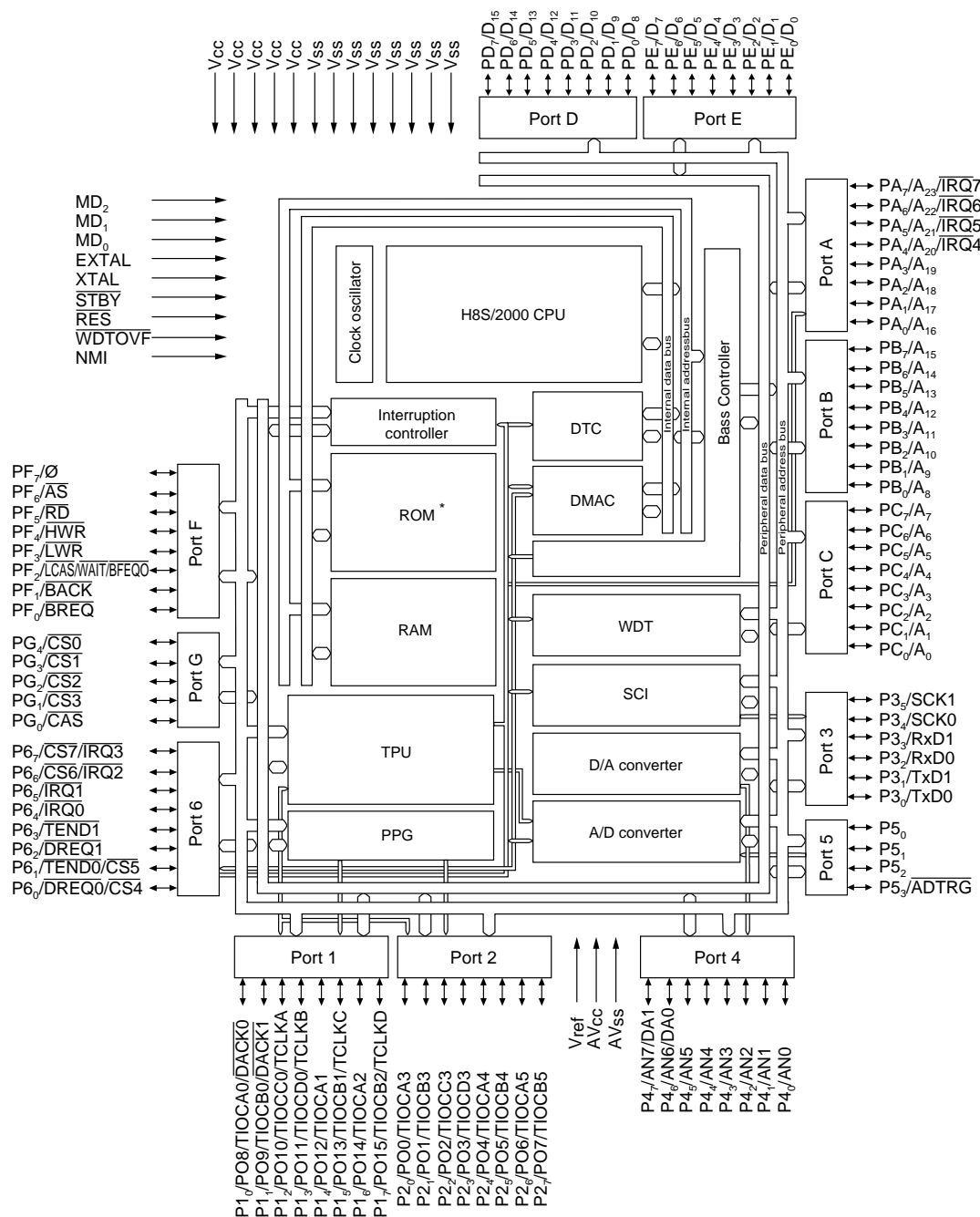


12-2. IC501 IX1689GE FLASH MEMORY

Pin No.	Symbol	Type	Name and function
45	DQ ₁₅ /A ₋₁	Input	Byte selection address: When the device is in the x8 mode, the low or high order byte is selected. It is not used in the x16 mode. (If BYTE# is high, DQ ₁₅ /A ₋₁ input circuit does not operate.)
25-18, 8-4	A ₀ -A ₁₂	Input	Word selection address: Selection of one word of 16k byte block. These addresses are latched during data wiring operation.
3-1, 48, 16, 17	A ₁₃ -A ₁₈	Input	Block selection address: Selection of 1/32 erase block. These addresses are latched during data writing, erasing and lock block operation.
29, 31, 33, 35, 38, 40, 42, 44	DQ ₀ -DQ ₇	Input/Output	Low order byte data input/output: Command user interface writing cycle data and command input. Various data read memory identifier and status data output Chip nonselection or output disable: Float state
30, 32, 34, 36, 39, 41, 43, 45	DQ ₈ -DQ ₁₄	Input/Output	High order byte data input/output: The function is the same as that of low order byte data input/output. Operative only in x16 mode. x8 mode: Float state DQ ₁₅ /A ₋₁ is address.
26	CE#	Input	Chip enable: Device control logic, input buffer, decoder and sense amp. are activated. Chip becomes active only when CE# is "Low".
12	RP#	Input	Reset/Power down: If RP# is set to "Low", the control circuit is initialized when power is turned on. Hence, the RP#pin is set to "Low". When power is turned on or off or in case of fluctuation it is kept at "Low" so as to protect data from noise. When RP# is in "Low" state, the device is in deep power down state. 480 ns is required to recover from the deep power down state. If the RP# pin becomes "Low", the whole chip operation is interrupted and reset. After recovery the device is set to array read state.
28	OE#	Input	Output enable: When OE# is set to "Low", data is output from the DQ pin. When OE# is set to "High", the DQ pin is set to float state.
11	WR#	Input	Write enable: Command user interface, data Q register and address Q latch access is controlled. In "Low" state WR# becomes active. At rise edge the address and data are fetched.
14	WP#	Input	Write protection: Blanking/writing to the boot block area is input of prohibition control. Blanking to the boot block area and writing actuation can't be executed at the time of WP#=V _{IL} .
15	RY/BY#	Output	Ready/busy: The state of internal write state machine is output. In "Low" state it is indicated that the write state machine is in operation. If the write state machine waits for next operation instruction, erase is suspended or it is in deep power down state, the RY/BY# pin is in float state.
47	BYTE#	Input	Byte enable: When BYTE# is set to "Low", the device is set to the x8 mode. At this time the DQ ₈ -DQ ₁₅ pin becomes float state. Address A ₋₁ selects high order/low order byte. When BYTE# is "High", the device is set to the x16 mode. The A ₋₁ input circuit is disabled.
13	V _{pp}	———	Write/erase power supply: 5.0 ± 0.5V is applied during writing/erasing.
37	V _{cc}	———	Device power supply: 5.0 ± 0.5V
27, 46	GND	———	Ground
9, 10	NC	———	Nonconnection

12-4. IC504 IX1687GE MICRO COM.

• Block Diagram

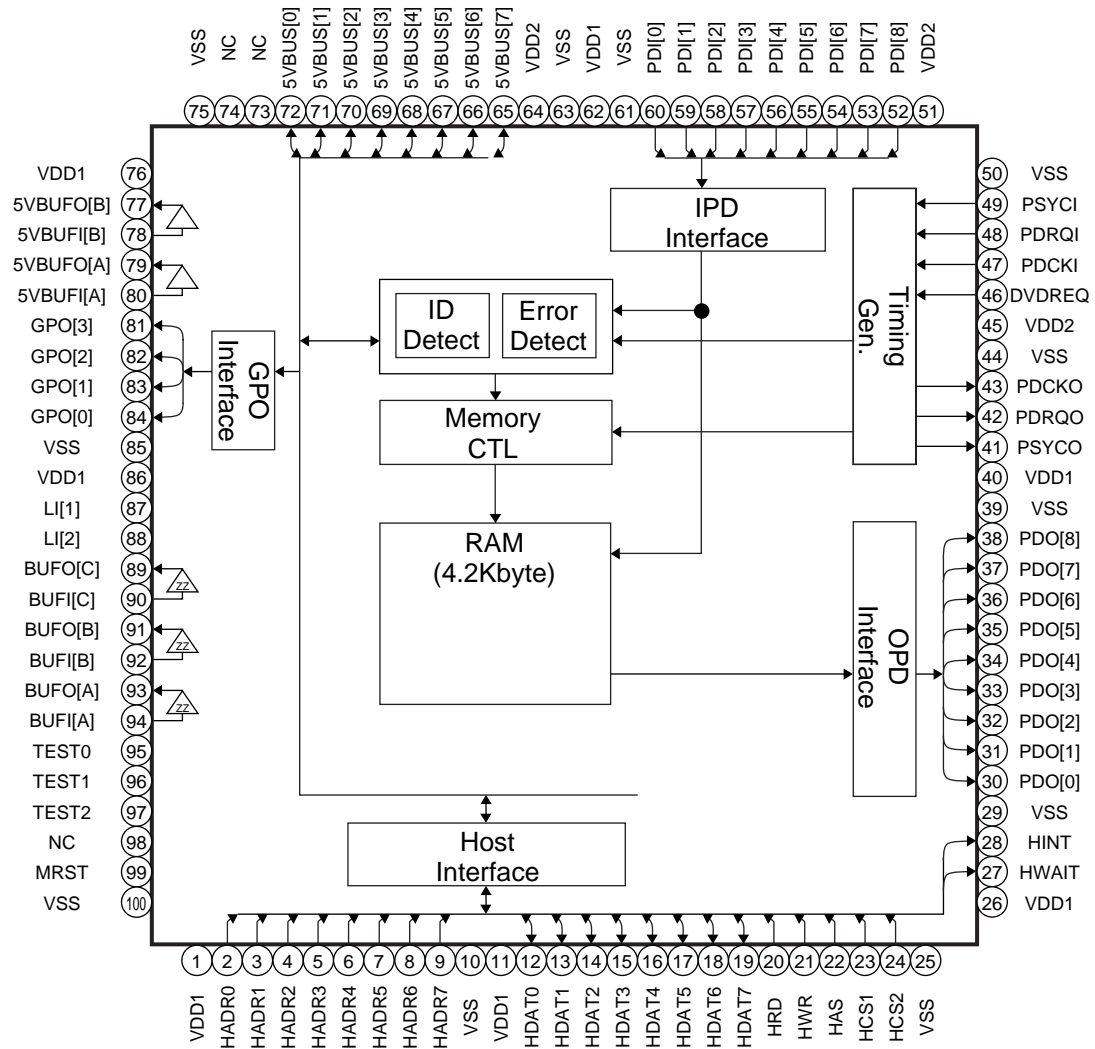


12-5. IC508 IX1761GE TRACK BUFFER INTERFACE

Pin No.	Terminal name	I/O	Operation function
1	VDD1	Supply	Digital power supply +3.3V
2	HADR0	Input	CPU Address bus
3	HADR1	Input	CPU Address bus
4	HADR2	Input	CPU Address bus
5	HADR3	Input	CPU Address bus
6	HADR4	Input	CPU Address bus
7	HADR5	Input	CPU Address bus
8	HADR6	Input	CPU Address bus
9	HADR7	Input	CPU Address bus
10	VSS	Supply	Digital GND
11	VDD1	Supply	Digital power supply +3.3V
12	HDAT0	In/Output	CPU Data bus
13	HDAT1	In/Output	CPU Data bus
14	HDAT2	In/Output	CPU Data bus
15	HDAT3	In/Output	CPU Data bus
16	HDAT4	In/Output	CPU Data bus
17	HDAT5	In/Output	CPU Data bus
18	HDAT6	In/Output	CPU Data bus
19	HDAT7	In/Output	CPU Data bus
20	HRD	Input	CPU Read signal
21	HWR	Input	CPU write signal
22	HAS	Input	CPU address strobe
23	HCS1	Input	CPU chip select signal 1 (Track Buffer Operation)
24	HCS2	Input	CPU chip select signal 2 (bus Voltage Transfer)
25	VSS	Supply	Digital GND
26	VDD1	Supply	Digital power supply +3.3V
27	HWAIT	Output	CPU wait signal (Open drain)
28	HINT	Output	CPU interrupt signal (Open drain)
29	VSS	Supply	Digital GND
30	PDO[0]	Output	Output DVD/CDdata
31	PDO[1]	Output	Output DVD/CDdata
32	PDO[2]	Output	Output DVD/CDdata
33	PDO[3]	Output	Output DVD/CDdata
34	PDO[4]	Output	Output DVD/CDdata
35	PDO[5]	Output	Output DVD/CDdata
36	PDO[6]	Output	Output DVD/CDdata
37	PDO[7]	Output	Output DVD/CDdata
38	PDO[8]	Output	Output DVD/CDdata
39	VSS	Supply	Digital GND
40	VDD1	Supply	Digital power supply +3.3V
41	PSYCO	Output	Output data selector sync signal
42	PDRQO	Output	Output data transfer block signal
43	PDCKO	Output	Output data transfer clock
44	VSS	Supply	Digital GND
45	VDD2	Supply	Digital power supply +5V
46	DVDREQ	Input	Request signal input
47	PDCKI	Input	Input data transfer clock
48	PDRQI	Input	Input data transfer block signal
49	PSYCI	Input	Input data selector sync signal
50	VSS	Supply	Digital GND
51	VDD2	Supply	Digital power supply +5V

Pin No.	Terminal name	I/O	Operation function
52	PDI[8]	Output	Input DVD/CD data
53	PDI[7]	Output	Input DVD/CD data
54	PDI[6]	Output	Input DVD/CD data
55	PDI[5]	Output	Input DVD/CD data
56	PDI[4]	Output	Input DVD/CD data
57	PDI[3]	Output	Input DVD/CD data
58	PDI[2]	Output	Input DVD/CD data
59	PDI[1]	Output	Input DVD/CD data
60	PDI[0]	Output	Input DVD/CD data
61	VSS	Supply	Digital GND
62	VDD1	Supply	Digital power supply +3.3V
63	VSS	Supply	Digital GND
64	VDD2	Supply	Digital power supply +5V
65	5VBUS[7]	In/Output	CPU bus 5V conversion input/output
66	5VBUS[6]	In/Output	CPU bus 5V conversion input/output
67	5VBUS[5]	In/Output	CPU bus 5V conversion input/output
68	5VBUS[4]	In/Output	CPU bus 5V conversion input/output
69	5VBUS[3]	In/Output	CPU bus 5V conversion input/output
70	5VBUS[2]	In/Output	CPU bus 5V conversion input/output
71	5VBUS[1]	In/Output	CPU bus 5V conversion input/output
72	5VBUS[0]	In/Output	CPU bus 5V conversion input/output
73	NC	—	Not Connect
74	NC	—	Not Connect
75	VSS	Supply	Digital GND
76	VDD1	Supply	Digital power supply +3.3V
77	5VBUFO[B]	Output	5V buffer output B
78	5VBUFI[B]	Output	5V buffer input B (3.3V input)
79	5VBUFO[A]	Output	5V buffer output A
80	5VBUFI[A]	Output	5V buffer input A (3.3V input)
81	GPO[3]	Output	General-purpose output terminal (CPU control)
82	GPO[2]	Output	General-purpose output terminal (CPU control)
83	GPO[1]	Output	General-purpose output terminal (CPU control)
84	GPO[0]	Output	General-purpose output terminal (CPU control)
85	VSS	Supply	Digital GND
86	VDD1	Supply	Digital power supply +3.3V
87	LI[1]	Input	Gate Input[1]
88	LI[2]	Input	Gate Input[2]
89	BUFO[C]	Output	Schmitt trigger buffer output C
90	BUFI[C]	Input	Schmitt trigger buffer input C
91	BUFO[B]	Output	Schmitt trigger buffer output B
92	BUFI[B]	Input	Schmitt trigger buffer input B
93	BUFO[A]	Output	Schmitt trigger buffer output A
94	BUFI[A]	Input	Schmitt trigger buffer input A
95	TEST0	Input	Test terminal 0 (Normal: Low, Test: Hi) Function
96	TEST1	Input	Test terminal 1 (Normal: Low, Test: Hi) RAM
97	TEST2	Input	Test terminal 2 (Normal: Low, Test: Hi) Pin
98	NC	—	Not Connect
99	MRST	Input	27MHz Input terminal
100	VSS	Supply	Digital GND

• Block Diagram



12-6. IC601 IX1720GE AV DECODER

• Terminal description

Name	Type	Description
Host interface, CD-DSP interface, sub-code interface (32-pin)		
RESET#	ID	Reset input (active Low). When shifting from the assert state to deassert state, initialization process of this device is started.
STANDBY#	ID	Stand-by input (active Low). When asserting with RESET#, all of output pins and bidirectional pins enter the float state, and this device is electrically separated from periphery. All internal operations are stopped and the power consumption is minimized. In the stand-by mode, the contents of SDRAM and setup parameter are not retained.
IDLE	O(p.u.)	Idle, Init, or Reset state display output (active High). It enters the active state after resetting.
HWID	ID	Data bus width of the host interface is determined. It can be changed during resetting only. The host interface of the device is set to 8 bits at the low level (GNDP) and 16 bits at the high level (VDDP).
HORD	ID	When the width is 16 bits (HWID is VDDP), byte order of the host interface data bus is determined. It can be changed during resetting only. The device is set to input/output m.s. byte HD at [15:8] at the low level (GNDP), and m.s. byte at [7:0] at the high level. When HWID is at the GNDP level, it is connected to GNDP.
HTYPE	ID	Protocol of the host bus is determined. It can be changed during resetting only. The device is set to A type at the low level (GNDP) and B type at the high level (VDDP).
HD[7:0] (HD[7:4]) (HD[3]) (HD[2:1]) (HD[0])	I/O (r.t.) (p.u.) (r.t.) (p.u.)	8 l.s. of the host data bus. When HWID input is connected to GNDP, only this signal is defined as the host data signal. When HWID is connected to VDDP, it is used as an 8 l.s. line of 16-bit data bus.
HD[11:8] (HD[11]) (HD[10:8])	I/O (p.d.) (r.t.)	When HWID is connected to VDDP, it is used as a data line 11:8 of the 16-bit host data bus.
HD[15:12] CDCLK (HD[12]) CDDAT (HD[13]) CDFRM (HD[14]) CDERR (HD[15])	I/O(r.t.) I I I I	When HWID is connected to VDDP, it is used as a data line 15:12 of the 16-bit host data bus. When HWID is connected to GNDP, it is used as a the CD-DSP serial input port pin as defined below. CD-DSP bit clock input CD-DSP data input CD-DSP LR clock (frame) input CD-DSP data error input
HA[3:0]	I	Host address input. The address signal specifying the physical address in this device is input.
HCS#	I	Host chip select input. Active Low.
HWR# (HR/W#)	I	Host protocol A type (HTYPE=GNDP): HR/W#. This input determines the direction of the host access. Host protocol B type (HTYPE=VDDP): HWR#. Host write input (active Low).
HRD# (HDS)	I	Host protocol A type (HTYPE=GNDP): HDS#. Data strobe input (active Low). Host protocol B type (HTYPE=VDDP): HRD#. Host read input (active Low).

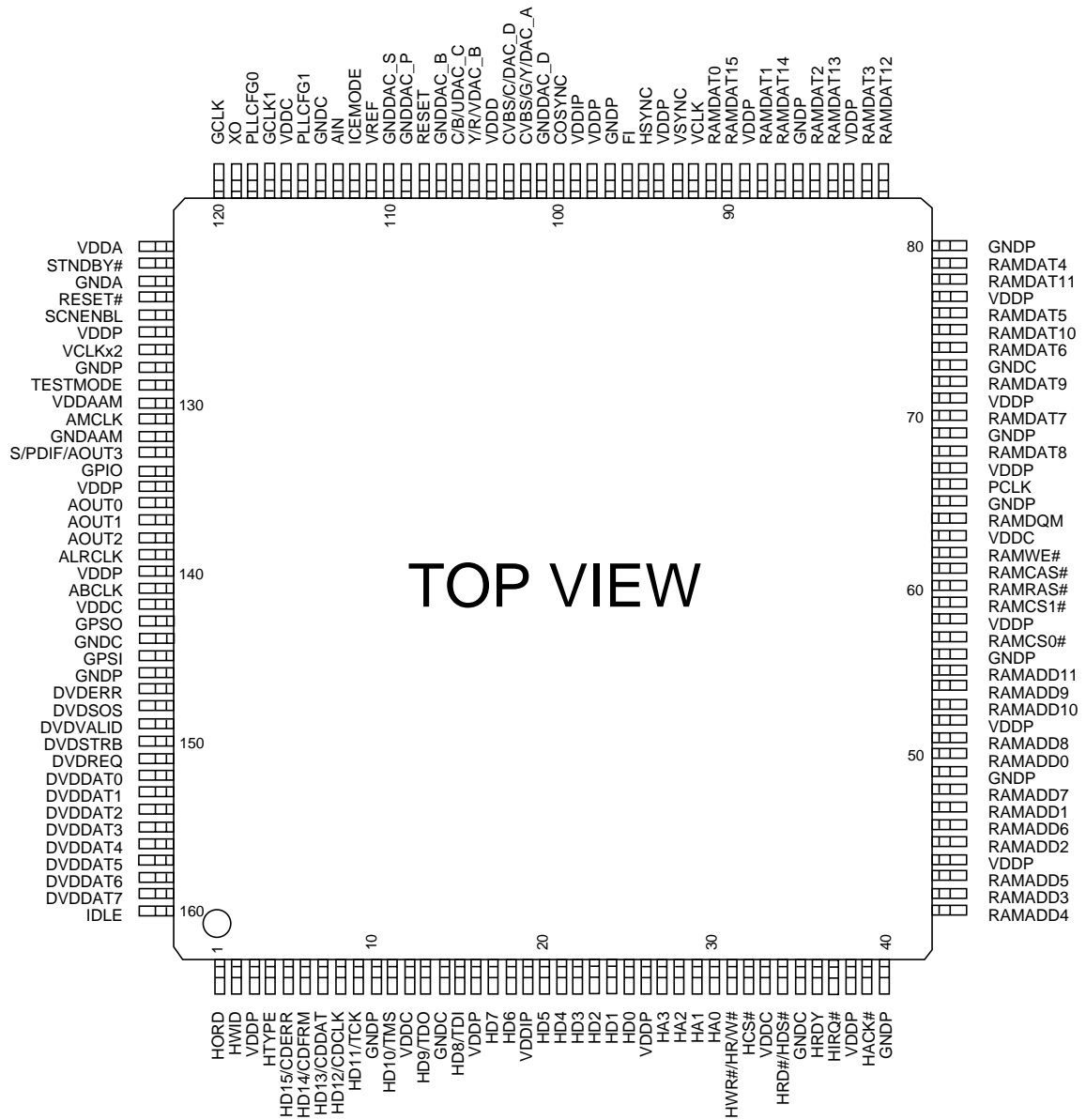
Glossary

I	Input	O	Output	I/O	Bidirectional
AI	Analog input	AO	Analog output	AI/O	Analog bidirectional
ID	Input not synchronized with PCLK	p.u.	Terminal internally pulled up	p.d.	Terminal internally pulled down
r.t.	Retained terminal				

Name	Type	Description
Host interface, CD-DSP interface, sub-code interface (32-pin)...continued		
HRDY	O(p.d.)	Host ready output (active High). Use this signal when the stream is transferred via the host bus. External pull-up resistor is required. Prior to transfer of each packet (1 packet: length in CodBurstLen bytes), make sure that this signal is in the active state, and then bit streams of CodBurstLen byte long or shorter can be written on this device consecutively.
HIRQ#	O(p.u.)	Interrupt request (active Low). This is deasserted when the host reads the interrupt status register of this device and also when the host masks or resets the interrupt using the interrupt mask register. When HIRQ# is not asserted, it enters the 3-state mode. (External pull-up resistor is required.)
HACK#	O(p.u.)	Host acknowledge output (active Low). When the protocol is A type, the device asserts this output and notifies the completion of read or write cycle. When this signal is not active, it enters the 3-state mode. (External pull-up resistor is required.) When the protocol is B type, this signal functions as a wait output signal. If the high-speed host (microcomputer) is used, this signal may not have to be connected.
GPIO signal (3-pin)		
GPIO	I/O(r.t.)	General-purpose bidirectional pin monitored and controlled by the ADP micro code. After resetting, this pin is defined as an input. It can be set by using the ADP command.
GPSI	I	General-purpose input monitored by the DVP micro code.
GPSO	O(p.d.)	General-purpose output controlled by the DVP micro code. After resetting, output from this pin is switched to Low.
PLL signal (5-pin)		
GCLK	ID	27,000 MHz clock or crystal input for main processor.
GCLK1	ID	27,000 MHz master clock input for audio. Normally, this must be connected to GCLK.
XO	AO	Output to crystal connected to GCLK. If the crystal is not used for GCLK, nothing must be connected to XO.
PLLCFG[1:0]	ID	PLL configuration input. It can be changed only during resetting. Normally, both pins must be connected to GNDP.
Analog video port (7-pin)		
CVBS/G/Y (DAC A)	AO	For CVBS, the composite video signal is output. For RGB, the G signal is output. For YUV, the Y signal is output.
Y/R/V (DAC B)	AO	For CVBS, the Y signal is output. For RGB, the R signal is output. For YUV, the V signal is output.
C/B/U (DAC C)	AO	For CVBS, the C signal is output. For RGB, the B signal is output. For YUV, the U signal is output.
CVBS/C (DAC D)	AO	The CVBS or C signal is selected and output.
RSET	AI	Resistance load for DAC gain adjustment is inserted between GND and DAC.
VREF	AI	Reference voltage for DAC gain adjustment is input.
COSYNC	O(p.d.)	Composite sync output. Effective only when the RGB analog output is selected. Otherwise, it is fixed to Low.
Digital video port (5-pin)		
VCLKx2	I/O(r.t.)	Main video clock input or output. 27,000 MHz.
VCLK	I/O(r.t.)	Divided VCLKx2 signal. Used as a qualifier of data and sync signal.
HSYNC	I/O(r.t.)	Horizontal sync bidirectional signal pin. Its polarity and length are programmable.
VSNC	I/O(r.t.)	Vertical sync bidirectional signal pin. Its polarity and length are programmable.
FI	I/O(r.t.)	Field identification bidirectional signal pin. Its polarity is programmable.

Name	Type	Description
Digital audio port (8-pin)		
AMCLK	I/O(p.u.)	Audio master clock I/O. Sampling frequency can be selected among 384fs, 256fs, 192fs, and 128fs (programmable).
S/PDIF (AOUT[3])	O(p.d.)	S/PDIF transmitter output. It can be connected to DAC as the fourth audio output (AOUT [3]). After resetting, this pin outputs the low-level signal.
AOUT[2:0]	O(p.d.)	Serial output of PCM stereo audio for DAC. After resetting, this pin outputs the low-level signal.
AIN	I	Serial input of PCM stereo audio for ADC.
ALRCLK	O(p.d.)	LR clock output of AOUT [4:0] and AIN. The square wave is formed with the sampling frequency. The LR polarities are programmable.
ABCLK	O(p.d.)	Bit clock output of AOUT [4:0] and AIN. AOUT is output to this clock in the leading and trailing edges (programmable) and AIN is latched.
DVD-DSP interface (13-pin)		
DVDREQ	O(p.d.)	DVD-DSP data request output (polarity programmable).
DVDVALID	I	DVD-DSP data effective input (polarity programmable).
DVDSOS	I	DVD-DSP data sector start input (polarity programmable).
DVDDAT[7:0]	I	DVD-DSP data input bus.
DVDSTRB	ID	DVD-DSP data bit strobe (clock) input. Polarity programmable.
DVDERR	I	DVD-DSP error input. Polarity programmable.
SDRAM interface (35-pin)		
RAMDAT [15:0]	I/O(r.t.)	SDRAM bidirectional data bus.
RAMADD [11:0]	O(p.d.)	SDRAM address bus output.
RAMRAS#	O(p.u.)	SDRAM row selection (active Low) output.
RAMCAS#	O(p.u.)	SDRAM column selection (active Low) output.
PCLK	O(p.d.)	SDRAM clock output (same as the internal processing clock).
RAMDQM	O(p.d.)	SDRAM data masking (active High) output.
RAMCS0#	O(p.u.)	SDRAM chip select (active Low) output. Lower 2 Mbyte device.
RAMCS1#	O(p.u.)	SDRAM chip select (active Low) output. Upper 2 Mbyte device.
RAMWE#	O(p.u.)	SDRAM write enable (active Low) output.
TEST signal (pin 3)		
SCENBL	ID	Test pin. Normally connected to GNNDP.
TESTMODE	ID	Test pin. Normally connected to GNNDP.
ICEMODE	ID	Test pin. Normally connected to VDDP.
Power signal (49-pin)		
GNNDP	S	Ground for 3.3V digital power supply.
VDDP	S	3.3V digital power supply
VDDIP	S	3.3V digital power supply
GNDAAM	S	Ground for PLL power supply for 3.3V AMCLK generation.
VDDAAM	S	PLL power supply for 3.3V AMCLK generation.
GNDC	S	Ground for 1.8V digital power supply.
VDDC	S	1.8V digital power supply.
GNDA	S	Ground for PLL power supply for 1.8V internal clock generation.
VDDA	S	PLL power supply for 1.8V internal clock generation.
VDDD	S	Analog power supply for 3.3V video DAC.
GNDDAC [D,B,P,S]	S	Ground for Analog power supply for 3.3V video DAC.

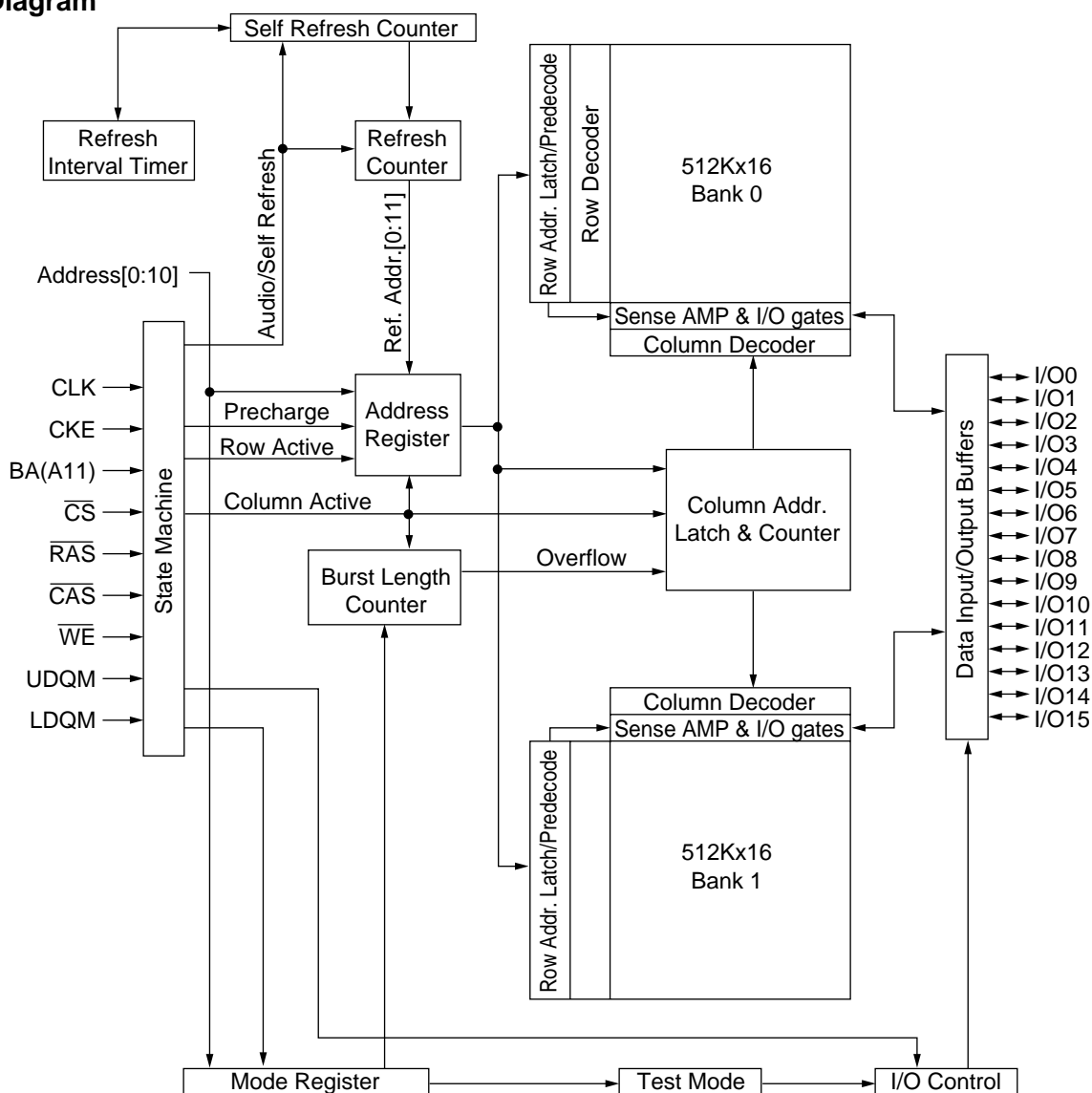
• Block Diagram



12-7. IC602-3 IX0751TA 16M SDRAM

Pin No.	Terminal Name	Name	Input Function
35	CLK	Clock	The system clock input. All other inputs are referenced to the SDRAM on the rising edge of CLK.
34	CKE	Clock Enable	Controls internal clock signal and when deactivated, the SDRAM will be one of the states among power down, suspend or self refresh.
18	CS	Chip Select	Command input enable or mask except CLK, CKE and DOM
19	BA	Bank Address	Select either one of banks during both RAS and CAS activity.
20~24 27~32	A0~A10	Address	Row Address: RA0~RA10, Column Address: CA0~CA7
17, 16, 15	RAS, CAS, WE	Row Address Strobe, Column Address Strobe, Write Enable	RAS, CAS and WE define the operation. Refer function truth table for details.
14, 36	LDQM, UDQM	Data Input/Output Mask	DQM control output buffer in read mode and mask input data in write mode.
2, 3, 5, 6, 8, 9, 11, 12, 39, 40, 42, 43, 45, 46, 48, 49	I/O0~15	Data Input/Output	Multiplexed data input/output pin
1, 25, 26	VDD/VSS	Power Supply/Ground	Power supply for internal circuit and input buffer.
4, 7, 10, 13, 38, 41, 44, 47, 50	VDDO/VSSO	Data Output Power/Ground	Power supply for DO
33, 37	NC	No Connection	No connection

• Block Diagram



12-8. IC701 TC94A03F SERVO/DATA PROCESSOR

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
1	ASLCN	Output	Data slice negative pole output	3V system	Analog output terminal
2	ASLCO	Output	Analog data slice output (Digital slice output enabled at differential input)	3V system	Analog output terminal
3	DVSS	—	Ground for DAC only	—	
4	RO	Output	R-ch output signal	3V system	Analog output terminal
5	DVDD	—	Power supply for DAC only	3V system	
6	DVR	Output	Amplifier reference signal output	3V system	Analog input terminal
7	LO	Output	L-ch output signal	3V system	Analog output terminal
8	DVSS	—	Ground for DAC only	—	
9	XVSS	—	Ground for oscillator only	—	
10	XI	Input	Crystal oscillation input	3V system	Analog input terminal
11	XO	Output	Crystal oscillation output	3V system	Analog output terminal
12	XVDD	—	Power supply for oscillator only	—	
13	TESM0	—	Test terminal	3V system	Connected to GND
14	TESM1	—	Test terminal	3V system	OPEN
15	TESM2	—	Test terminal	3V system	Connected to VDD3
16	VDD3	—	3.3V digital power	—	
17	VSS3	—	3.3V digital ground	—	
18	VPFC	Output	Clock PLL system phase/frequency comparative output	3V system	Analog output terminal
19	TEST0	Input	Test mode terminal	3V system	Connected to VDD3
20	VLPIFI	Input	VCO system filter input for clock PLL	3V system	Analog input terminal
21	VLPIFO	Output	VCO system filter output for clock PLL	3V system	Analog output terminal
22	VSS3	—	3.3V digital ground	—	
23	MON0	Output	Test monitor	3V system	
24	MON1				
25	MON2				
26	MON3				
27	MON4				
28	MON5				
29	MON6				
30	MON7				
31	MON8				
32	MON9				
33	VDD3	—	3.3V digital power	—	
34	NC	—		—	
35	NC				
36	TEST1	Input	Test mode terminal	3V system	Connected to VDD3
37	FLGA	In/Output	General-purpose I/O or flag monitor	5V system	
38	FLGB	In/Output	General-purpose I/O or flag monitor	5V system	
39	VSS3	—	3.3V digital ground	—	
40	/RST	Input	Reset terminal	5V system	Pull-up resistor built in
41	/MA	Input	Microcomputer address enable signal	5V system	Fail-safe terminal
42	/MRD	Input	Microcomputer data read signal	5V system	Fail-safe terminal
43	/MWR	Input	Microcomputer data write signal	5V system	Fail-safe terminal
44	/MCE	Input	Microcomputer chip enable signal	5V system	Fail-safe terminal
45	/MINT	Output	Microcomputer interrupt signal	5V system	Open drain terminal
46	MD0	In/Output	Microcomputer data buss	5V system	
47	MD1				
48	MD2				
49	MD3				
50	MD4				
51	MD5				
52	MD6				
53	MD7				
54	VDD5	—	5V power supply	—	

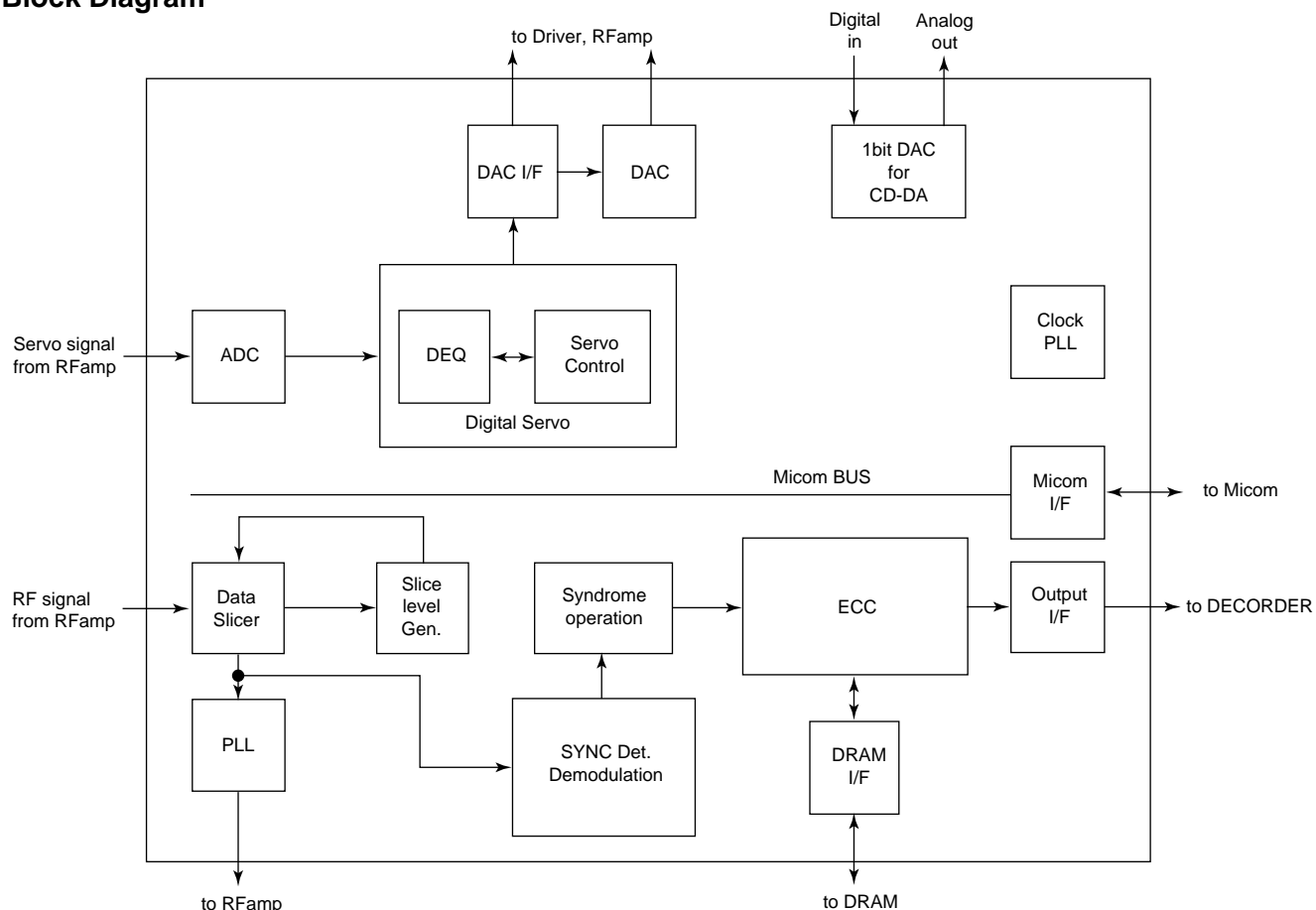
Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
55	NC	–		–	
56	NC				
57	SMCK	Output	22M system clock output	5V system	
58	VMCK	Output	Data output system (signal processing system) clock output	5V system	
59	VDD3	–	3.3V digital power supply	–	
60	PD0	Output	DVD/CD data output	5V system	
61	VSS5	–	5V ground supply	–	
62	PD1	Output	DVD/CD data output	5V system	
63	PD2				
64	PD3				
65	PD4				
66	VSS3	–	3.3V digital ground	–	
67	PD5	Output	DVD/CD data output	5V system	
68	PD6				
69	PD7				
70	PD8				
71	/PSYC	Output	DVD data sector sync signal	5V system	
72	/PDRQ	Output	DVD data transfer block	5V system	
73	PDCK	Output	DVD data transfer block	5V system	
74	VDD5	–	5V power supply	–	
75	TESM3	–	Test terminal	5V system	Connected to VSS5
76	DIGI	Input	1 bit DAC digital IN input	5V system	
77	TESM4	–	Test terminal	5V system	Connected to VDD5
78	VDD3	–	3.3V digital power supply	–	
79	BA0	Output	External RAM address output	5V system	
80	BA1				
81	BA2				
82	BA3				
83	VSS5	–	5V ground supply	–	
84	BA4	Output	External RAM address output	5V system	
85	BA5				
86	BA6				
87	BA7				
88	BA8				
89	VDD3	–	3.3V digital power supply	–	
90	/BOE	Output	External RAM/OE signal	5V system	
91	/BRAS	Output	External RAM/RAS signal	5V system	
92	/BCAS	Output	External RAM/UCAS signal	5V system	
93	/BCASL	Output	External LCAS/WE signal	5V system	
94	/BWE	Output	External RAM WE signal	5V system	
95	VDD5	–	5V power supply	–	
96	BD0	In/Output	External RAM data I/O	5V system	
97	BD1				
98	BD2				
99	BD3				
100	BD4				
101	BD5				
102	BD6				
103	BD7				
104	BD8				
105	VSS3	–	3.3V digital ground	–	
106	BD9	In/Output	External RAM data I/O	5V system	
107	BD10				
108	BD11				
109	BD12				
110	VSS5	–	5V ground supply	–	

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
111	BD13	In/Output	External RAM data I/O	5V system	
112	BD14				
113	BD15				
114	NC	–		–	
115	NC				
116	VDD3	–	3.3V digital power supply	–	
117	PLCK	In/Output	PLL system clock I/O	3V system	
118	TESM5	–	Test terminal	3V system	Connected to GND
119	TESM6	–	Test terminal	3V system	Connected to GND
120	TESM7	–	Test terminal	3V system	OPEN
121	TESM8	–	Test terminal	3V system	OPEN
122	VSS3	–	3.3V digital ground	–	
123	CFC1	Output	VCO frequency control signal	3V system	Analog output terminal
124	CFC2	Output	VCO frequency control signal	3V system	Analog output terminal
125	PPW	Output	Phase comparator offset adjustment voltage output	3V system	Analog output terminal
126	PESV	Input	Phase comparator offset adjustment signal input	3V system	Analog input terminal
127	PVSS	–	Ground for 3.3V PLL system only	–	
128	PESP	Output	Phase comparator offset adjustment signal output	3V system	Analog output terminal
129	PDOP1	Output	DVD/CD phase control signal (positive polarity)	3V system	Analog output terminal
130	PDON1	Output	DVD/CD phase control signal (negative polarity)	3V system	Analog output terminal
131	PDOP2	Output	DVD/CD phase control signal (positive polarity)	3V system	Analog output terminal
132	PDON2	Output	DVD/CD phase control signal (negative polarity)	3V system	Analog output terminal
133	LPFN	Input	Data PLL low-pass filter inversion input	3V system	Analog input terminal
134	LPFO	Output	Data PLL low-pass filter output	3V system	Analog output terminal
135	PVREF	–	Reference power supply for data PLL system only	3V system	
136	VCOREF	Input	VCO reference	3V system	Analog input terminal
137	VCOF	Input	VCO self-adjusting filter output	3V system	Analog input terminal
138	PVDD	–	Power supply for 3.3V PLL system only	–	
139	RFO _n	In/Output	Data slice 6-bit DAC output (RFO _n input enabled at differential input)	3V system	Analog output terminal
140	TESM9	–	Test terminal	3V system	OPEN
141	TEST2	Input	Test mode terminal	3V system	Connected to VDD3
142	RFCD	Input	CD RF signal input (RFO _p input enabled at differential input)	3V system	Analog input terminal
143	RFDVD	Input	DVD RF signal input (RFO _p input enabled at differential input)	3V system	Analog input terminal
144	AVDD	–	Power supply for 3.3V analog system only	–	
145	RFCT	Input	RFRP center voltage output (zero cross import)	3V system	OPEN
146	RFZI	Input	RFRP zero cross signal input	3V system	Analog input terminal
147	TEZI	Input	Tracking error signal input (zero cross import)	3V system	Analog input terminal
148	AWIN	Input	Active wide PLL control signal input	3V system	Analog input terminal
149	AVSS	–	Ground for 3.3V analog system only	–	
150	FEI	Input	Focus error signal input	3V system	Analog input terminal
151	TEI	Input	Tracking error signal input	3V system	Analog input terminal
152	LVL	Input	RF level or sub beam signal add input	3V system	Analog input terminal
153	RFRP	Input	RFRP signal input	3V system	Analog input terminal
154	AVSS	–	Ground for 3.3V analog system only	–	
155	TESM10	–	Test terminal	3V system	Connected to VREF

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
156	EXTAD	Input	General-purpose external ADC input	3V system	Analog input terminal
157	VREF	—	Reference power supply for analog system only: 1.65V	3V system	
158	FOO	Output	Focus EQ output	3V system	Analog output terminal
159	TRO	Output	Tracking EQ output	3V system	Analog output terminal
160	AVDD	—	Power supply for 3.3V analog system only	—	
161	AWCTL	Output	Active wide PLL control output	3V system	Analog output terminal
162	FMO	Output	Feed EQ output	3V system	Analog output terminal
163	DMO	Output	Disc EQ output	3V system	Analog output terminal
164	TEBC	Output	Tracking balance control signal	3V system	Analog output terminal
165	FEBC	Output	Focus balance control signal	3V system	Analog output terminal
166	DPDC	Output	DPD error signal/pit depth adjustment signal	3V system	Analog output terminal
167	EQBC	Output	RF wide boost adjustment signal	3V system	Analog output terminal
168	ANMON	Output	General-purpose PWM output	3V system	Analog output terminal
169	/DFCT	Output	Black dot detection signal	3V system	
170	VRCK	Output	RF EQ property control clock	3V system	
171	VSS3	—	3.3V digital ground	—	
172	SCD	Output	Head amplifier serial data		
173	SCL	Output	Head amplifier serial data latch pulse	3V system	
174	SCB	Output	Head amplifier serial data clock	3V system	
175	FGIN	Input	Disc FG signal input (with self-bias circuit)	3V system	Feedback resistor Analog input terminal
176	ASLCP	Output	Data slice positive pole output	3V system	Analog output terminal

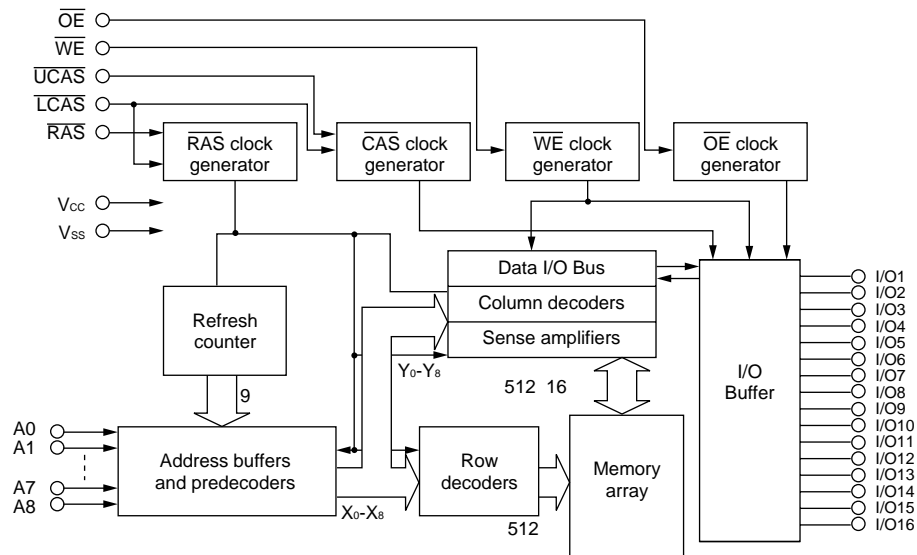
Note) Terminals with "/" at the beginning of their names are active "L" ones.

• Block Diagram



12-9. IC702 IX3420CE 4M EDO DRAM

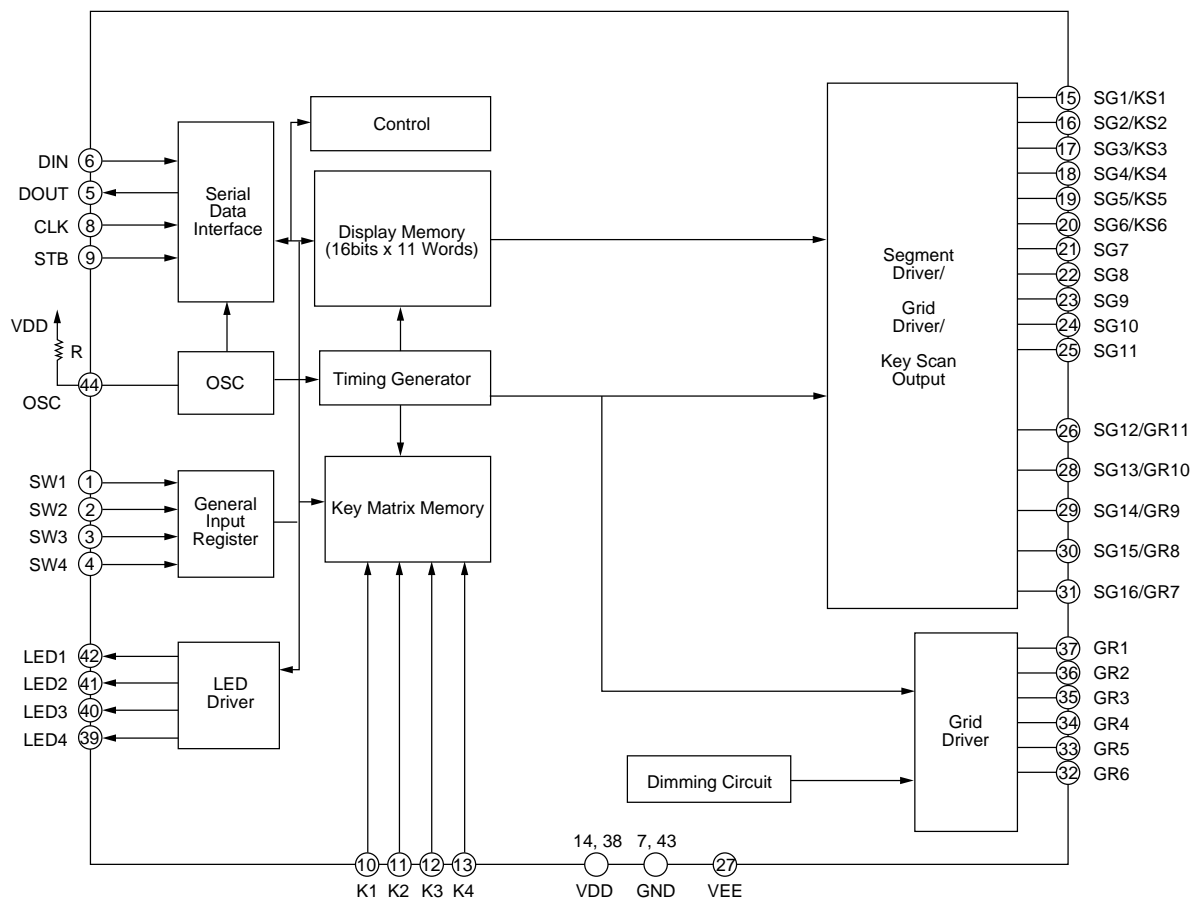
Terminal	Terminal name	Function
16-19, 22-26	A_0-A_8	Address inputs.
14	\overline{RAS}	Row address strobe.
28	\overline{UCAS}	Column address strobe/upper byte control.
29	\overline{LCAS}	Column address strobe/lower byte control.
13	\overline{WE}	Write enable.
27	\overline{OE}	Output enable.
2-5, 7-10 31-34, 36-39	DQ_1-DQ_{16}	Data inputs/outputs.
1, 6, 20	V_{CC}	+3.3V power supply.
21, 35, 40	V_{SS}	0V ground.
11-12, 15, 30	NC	No connection.

• Block Diagram

12-10. IC5001 PT6312LQ FL DRIVER

Pin No.	Terminal name	I/O	Operation function
1-4	SW1 to SW4	I	General purpose input pins
5	DOUT	O	Data output pin (N-Channel, Open-Drain) This pin outputs serial data at the falling edge of the shift clock (starting from the lower bit).
6	DIN	I	Data input pin This pin inputs serial data at the rising edge of the shift clock (starting from the lower bit)
7, 43	GND	—	Ground pin
8	CLK	I	Clock input pin This pin reads serial data at the rising edge and outputs data at the falling edge.
9	STB	I	Serial interface strobe pin The data input after the STB has fallen is processed as a command. When this pin is "HIGH", CLK is ignored.
10-13	K1 to K4	I	Key data input pins The data inputted to these pins are latched at the end of the display cycle.
14, 38	VDD	—	Logic power supply
15-20	SG1/KS1 to SG6/KS6	O	High-voltage segment output pins also acts as the key source
21-25	SG7 to SG11	O	High voltage segment output pin
26, 28-31	SG12/GR11 SG13/GR10 to SG16/GR7	O	High voltage segment/grid output pins
27	VEE	—	Pull-down level
32-37	GR6 to GR1	O	High-voltage grid output pins
42-39	LED1 to LED4	O	LED output pin
44	OSC	I	Oscillator input pin A resistor is connected to this pin to determine the oscillation frequency.

• Block Diagram

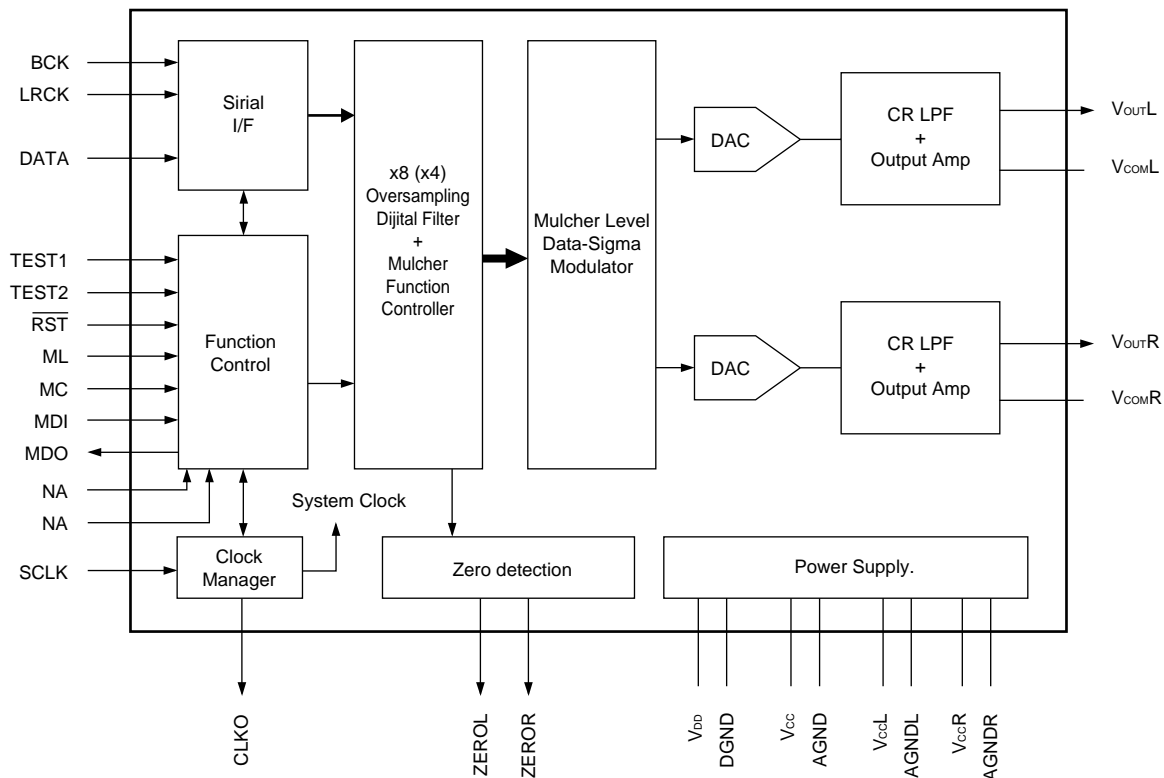


12-11. IC6001 PCM1737 AUDIO DAC

Pin No.	Terminal name	I/O	Operation function
1	LRCK	I	LRCK clock input (fs) ⁽¹⁾
2	DATA	I	Audio • Data input ⁽¹⁾
3	BCK	I	Bit clock input for data. ⁽¹⁾
4	CLKO	O	System clock buffered output.
5	SCLK	I	System clock input.
6	DGND	–	Digital ground.
7	V _{DD}	–	Digital power supply +3.3V
8	TEST1	I	Test pin ⁽²⁾ (Open or ground)
9	TEST2	I	Test pin ⁽²⁾ (Open or ground)
10	V _{CC} R	–	Rch, Analog power supply +5V
11	AGNDR	–	Analog ground, Rch
12	V _{COM} R	–	Rch Analog output amp. • common
13	V _{OUT} R	O	Rch Analog voltage output.
14	AGND	–	Analog • ground
15	V _{CC}	–	Analog power supply +5V
16	V _{OUT} L	O	Lch Analog voltage output
17	V _{COM} L	–	Lch Analog output amp • common
18	AGNDL	–	Analog ground, Lch
19	V _{CC} L	–	Lch, Analog power supply +5V
20	NA	I	Not connected.
21	NA	I	Not connected.
22	RST	I	Reset
23	ZEROL	O	Lch, Zero data • flag
24	ZEROR	O	Rch, Zero data • flag
25	MDO	O	Mode control, data output ⁽³⁾
26	MDI	I	Mode control, data input ⁽²⁾
27	MC	I	Mode clock ⁽²⁾
28	ML	I	Mode latch ⁽²⁾

Note: (1) Schmidt trigger input, 5V logic input possible. (2) Schmidt trigger input pull-down resistor. 5V logic input possible. (3) Try state output

• Block Diagram

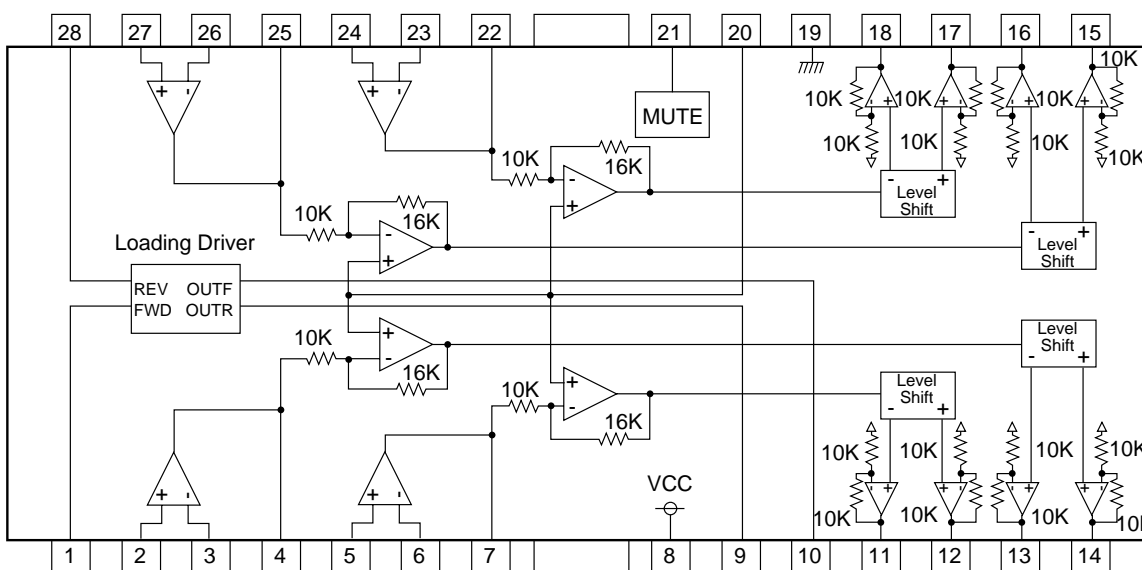


12-12. IC7701 BA5984FP MOTOR DRIVER

Pin No.	Terminal name	Operation function	Pin No.	Terminal name	Operation function
1	LD-FWD	Loading driver FWD input terminal	15	V04(+)	Driver CH4 Negative output
2	SL_IN(+)	CH1 Former stage amplifier nonreverse input terminal	16	V04(-)	Driver CH4 Positive output
3	SL_IN(-)	CH1 Former stage amplifier reverse input terminal	17	V03(+)	Driver CH3 Negative output
4	SLOUT	CH1 Former stage amplifier output terminal	18	V03(-)	Driver CH3 Positive output
5	SP_IN(+)	CH2 Former stage amplifier nonreverse input terminal	19	GND	Ground terminal
6	SP_IN(-)	CH2 Former stage amplifier reverse input terminal	20	BIAS	Bias input terminal
7	SP_OUT	CH2 Former stage amplifier output terminal	21	MUTE	Mute control terminal
8	VCC	Power terminal	22	FO_OUT	CH3 Former stage amplifier output terminal
9	LD(-)	Loading driver Negative output	23	FO_IN(-)	CH3 Former stage amplifier reverse input terminal
10	LD(+)	Loading driver Positive output	24	FO_IN(+)	CH3 Former stage amplifier nonreverse input terminal
11	SPIN(-)	Driver CH2 Negative output	25	TR_OUT	CH4 Former stage amplifier output terminal
12	SPIN(+)	Driver CH2 Positive output	26	TR_IN(-)	CH4 Former stage amplifier reverse input terminal
13	SL(-)	Driver CH1 Negative output	27	TR_IN(+)	CH4 Former stage amplifier nonreverse input terminal
14	SL(+)	Driver CH1 Positive output	28	REV	Loading driver REV input terminal

Note 1: Positive and negative output the driver have polarity with respect to input. (An example: 4 pin terminal voltage 'HIGH': 14 pin terminal voltage 'HIGH')

• Block Diagram



12-13. IC8201 IX1757GE INTERFACE MICOM.**• Terminal description**

Pin No.	Terminal Name	In/Output	Operation function
1	TRAY ACK(L)	Input	Input terminal of [TRAY ACK] from DVD microcomputer
2	DVD LED(L)	Output	DVD LED control terminal It outputs [L] and is lit during DVD output.
3	DUB LED(L)	Output	VTR ← DVD LED control terminal It outputs [L] and is lit in VTR ← DVD mode.
4	STANDBY LED(L)	Output	Stand-by LED control terminal It outputs [L] and is lit during stand-by.
5	TEST	Input	IC test terminal. Fixed to GND.
6	XIN	Input	Radiator connection terminal
7	VSS	–	Digital GND
8	XOUT	Output	Radiator connection terminal
9	VDD	–	Power AT_5V
10	R/C	Input	Remote control signal input
11	RESET	Input	Microcomputer reset signal input
12	NC	–	Unconnected
13	POWER KEY	Input	POWER key input: [L] input while key is ON.
14	OPEN/CLOSE KEY	Input	OPEN/CLOSE key input: [L] input while key is ON.
15	EA	Input	Terminal for IC only. Fixed to power supply.
16	POWER OFF	Output	VTR POWER OFF key control terminal It outputs [H] when the power is OFF.
17	POWER ON	Output	VTR POWER ON key control terminal It outputs [H] when the power is ON.
18	TIMER MODE	Input	VTR TIMER mode detection terminal When [H] is output, the VTR power ON/OFF is not controlled.
19	POWER MODE	Input	VTR POWER mode detection terminal When [TIMER MODE] = [L], DVD is turned ON when the [POWER MODE] is activated and turned OFF when it is deactivated.
20	REC MODE	Input	VTR REC mode detection terminal [VTR ← DVD] key is disabled at [H] input.
21~31	NC	–	No used
32	P-CON(L)	Output	DVD P-CON control terminal
33	SHORT DET(L)	Input	Short circuit detection terminal for DVD P-CON power supply After [L] is input for 0.5 seconds, P-CON is switched to OFF.
34	NC	–	Unconnected
35	A_OUT_MUTE(L)	Output	Sound output mute control terminal for VTR/DVD common terminal
36	DVD(H)	Output	Output switching control terminal for VTR/DVD common terminal
37	DUB(H)	Output	Input switching control terminal for VTR input 1
38~40	NC	–	No used
41	PLAY MODE(L)	Input	DVD PLAY mode detection terminal When [TIMER MODE] = [H] and [PLAY MODE] = [L], DVD is not turned OFF even if the [POWER MODE] is deactivated.
42	STANDBY REQUEST(L)	Output	Control terminal for POWER OFF request to DVD microcomputer It keeps outputting the request until [STANDBY ACK] = [L] is input.
43	TRAY REQUEST(L)	Output	Control terminal for TRAY operation request to DVD microcomputer It keeps outputting the request until [TRAY ACK] = [L] is input.
44	STANDBY ACK(L)	Input	Input terminal for [STANDBY ACK] from DVD microcomputer



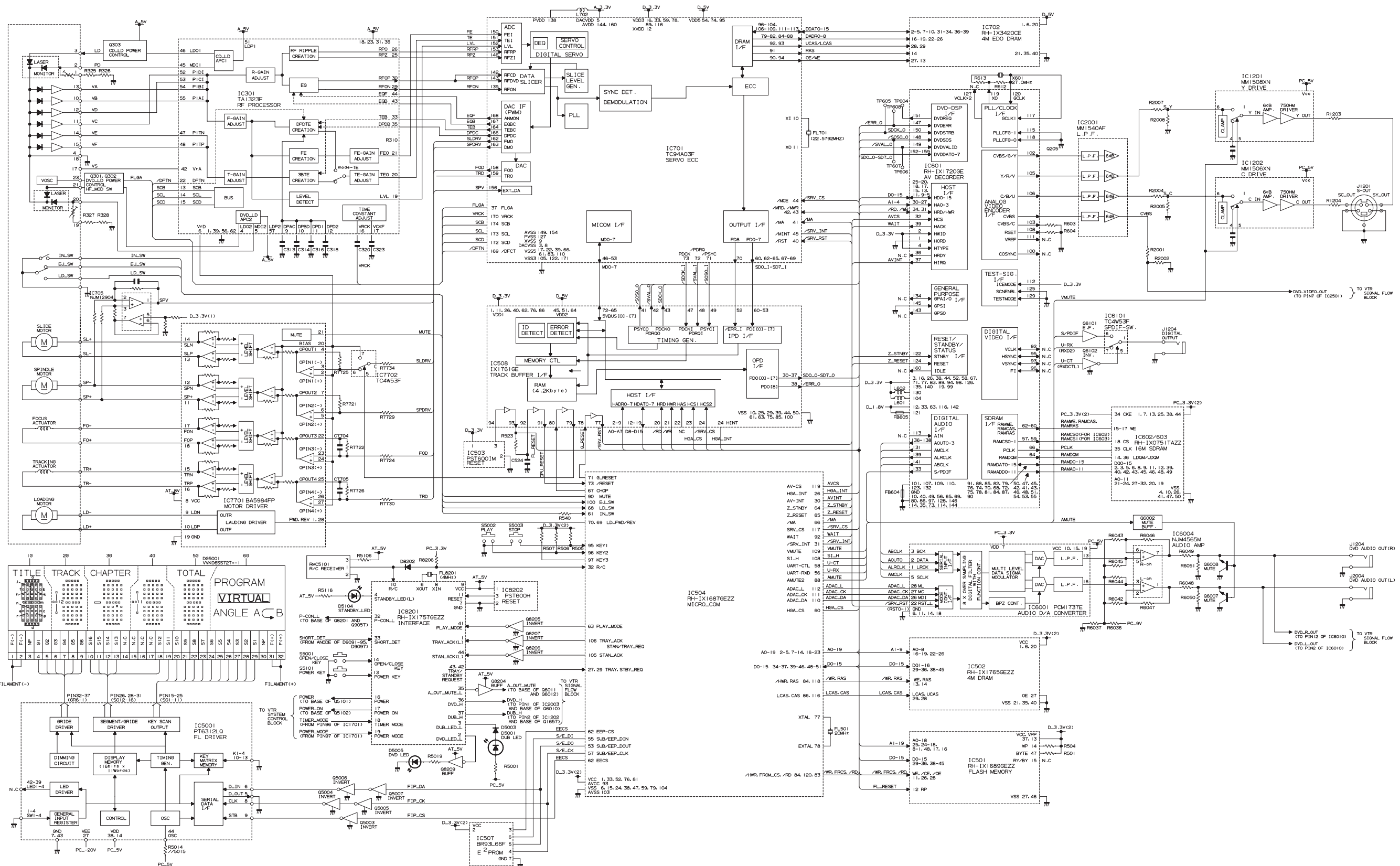
- M E M O -

[illegible]

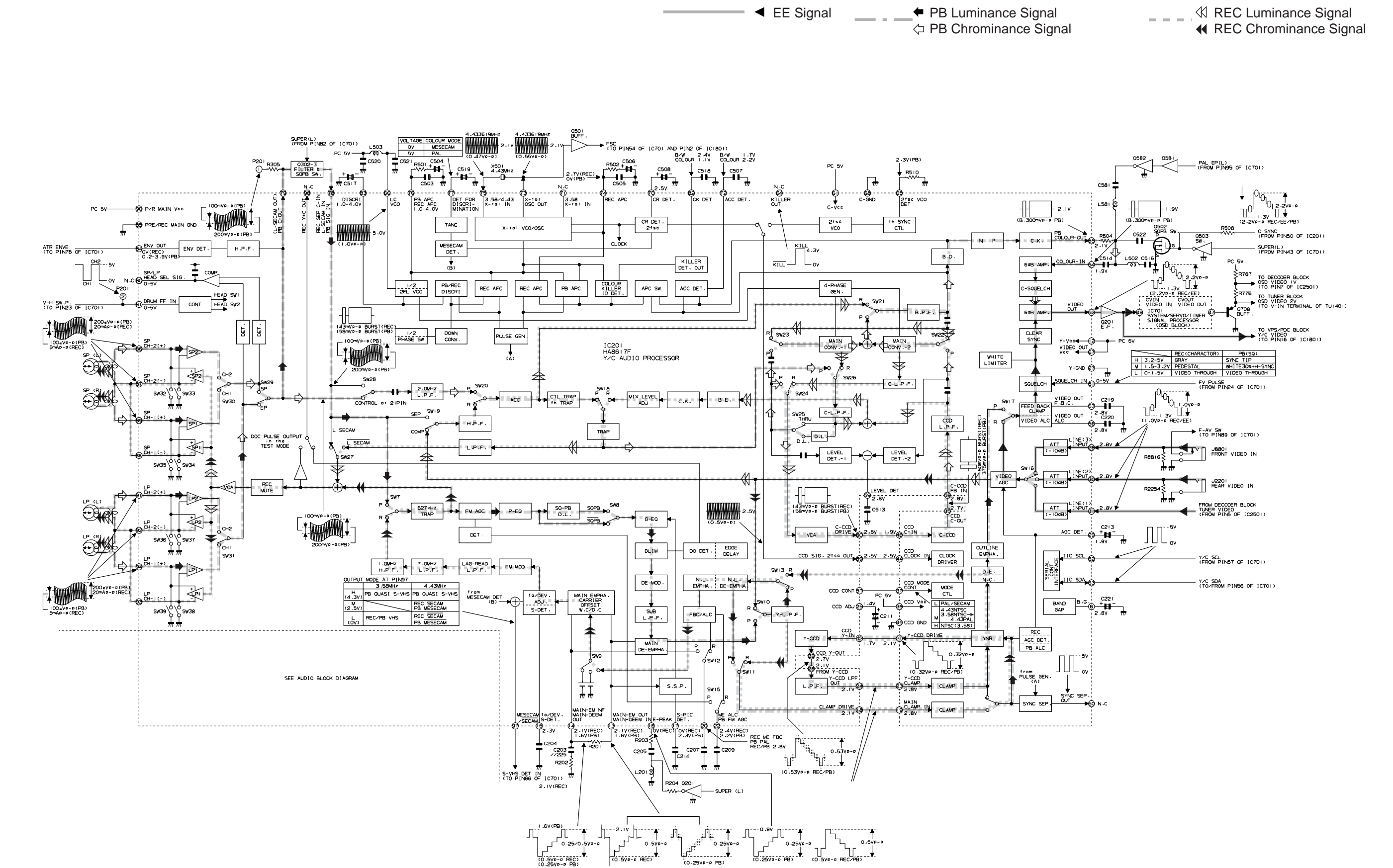
13-1. SYSTEM SERVO BLOCK DIAGRAM



13-2. MAIN BLOCK DIAGRAM



13-3. SIGNAL FLOW BLOCK DIAGRAM

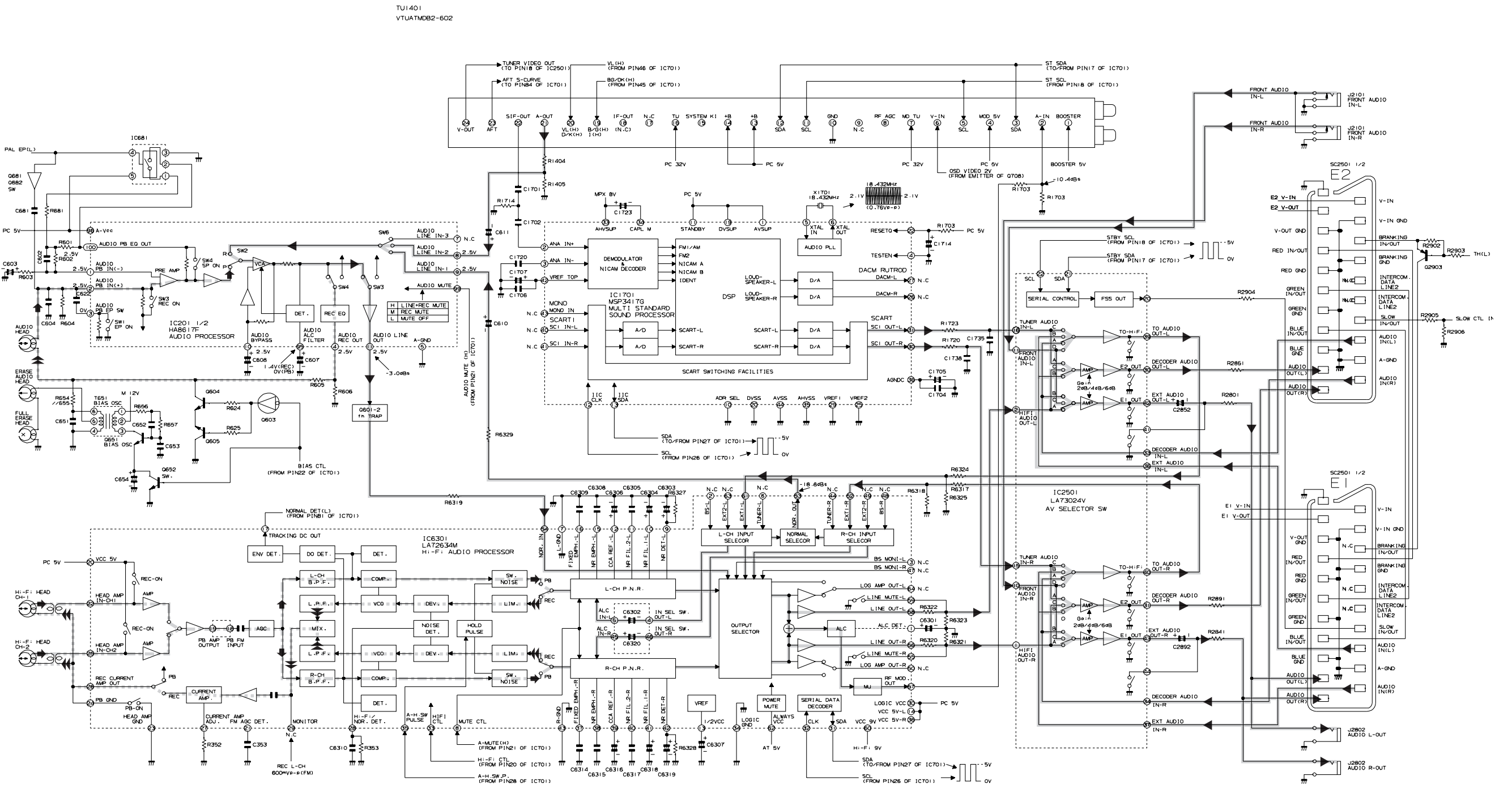


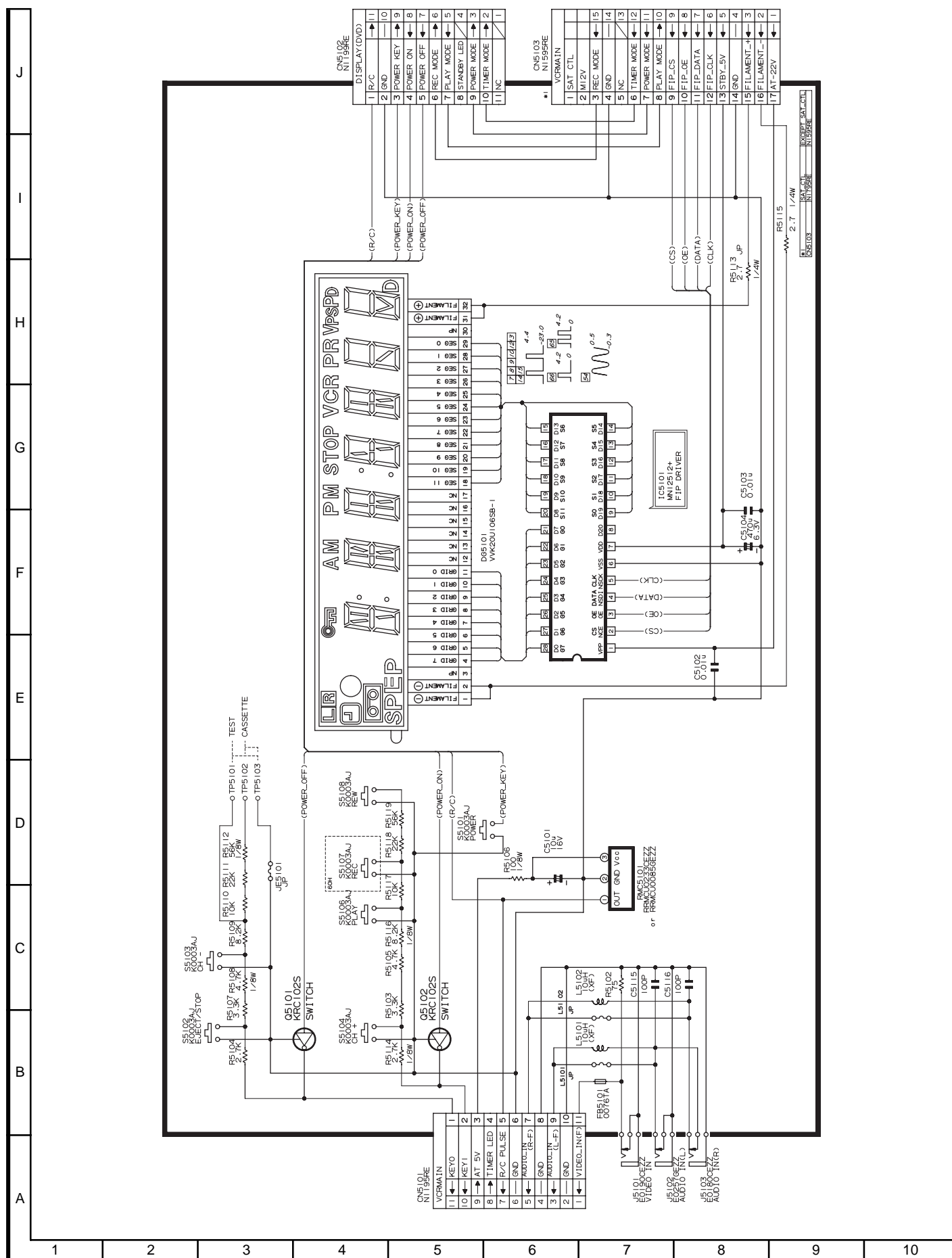
13-4. AUDIO BLOCK DIAGRAM

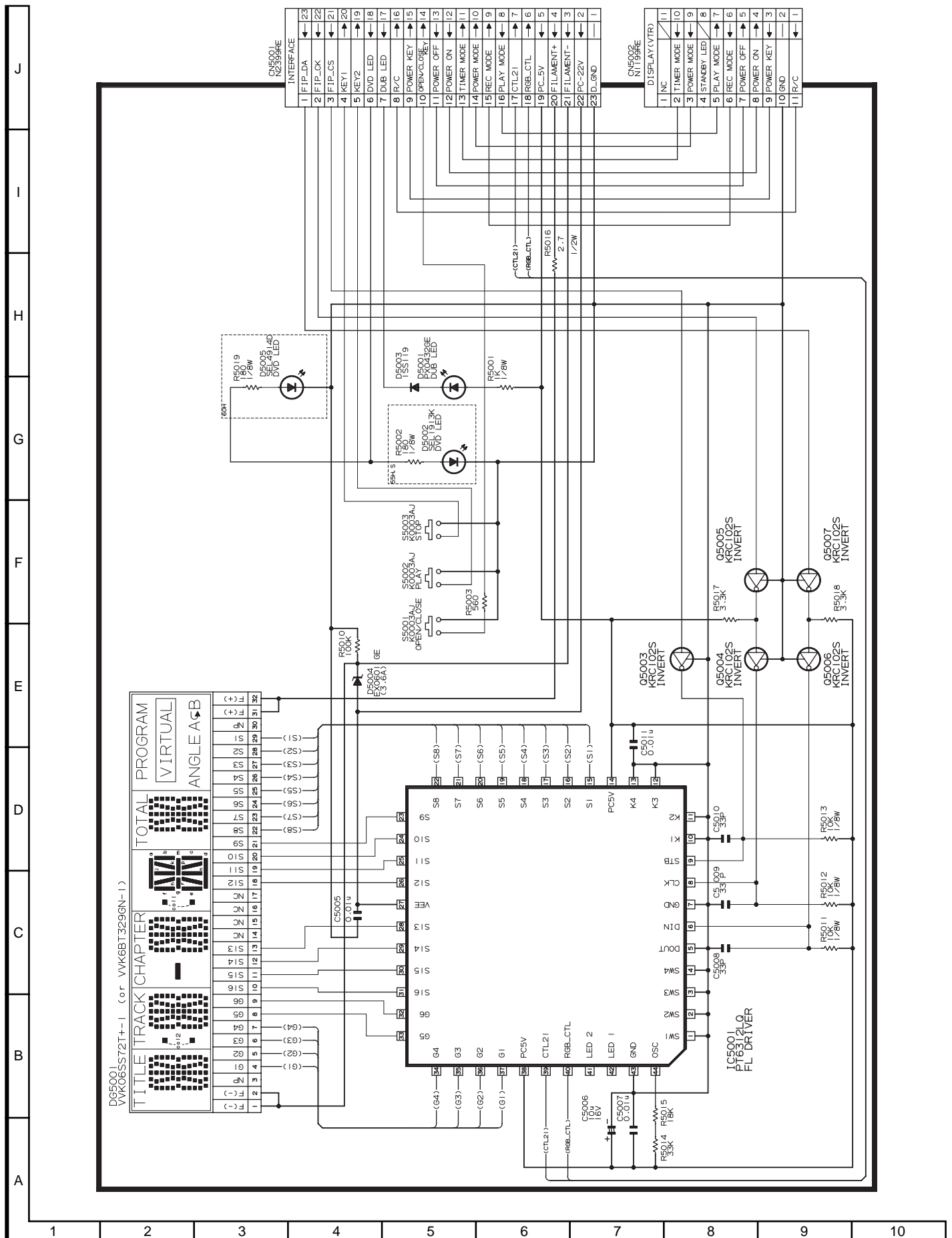
◀ EE Signal

◀ PB Signal

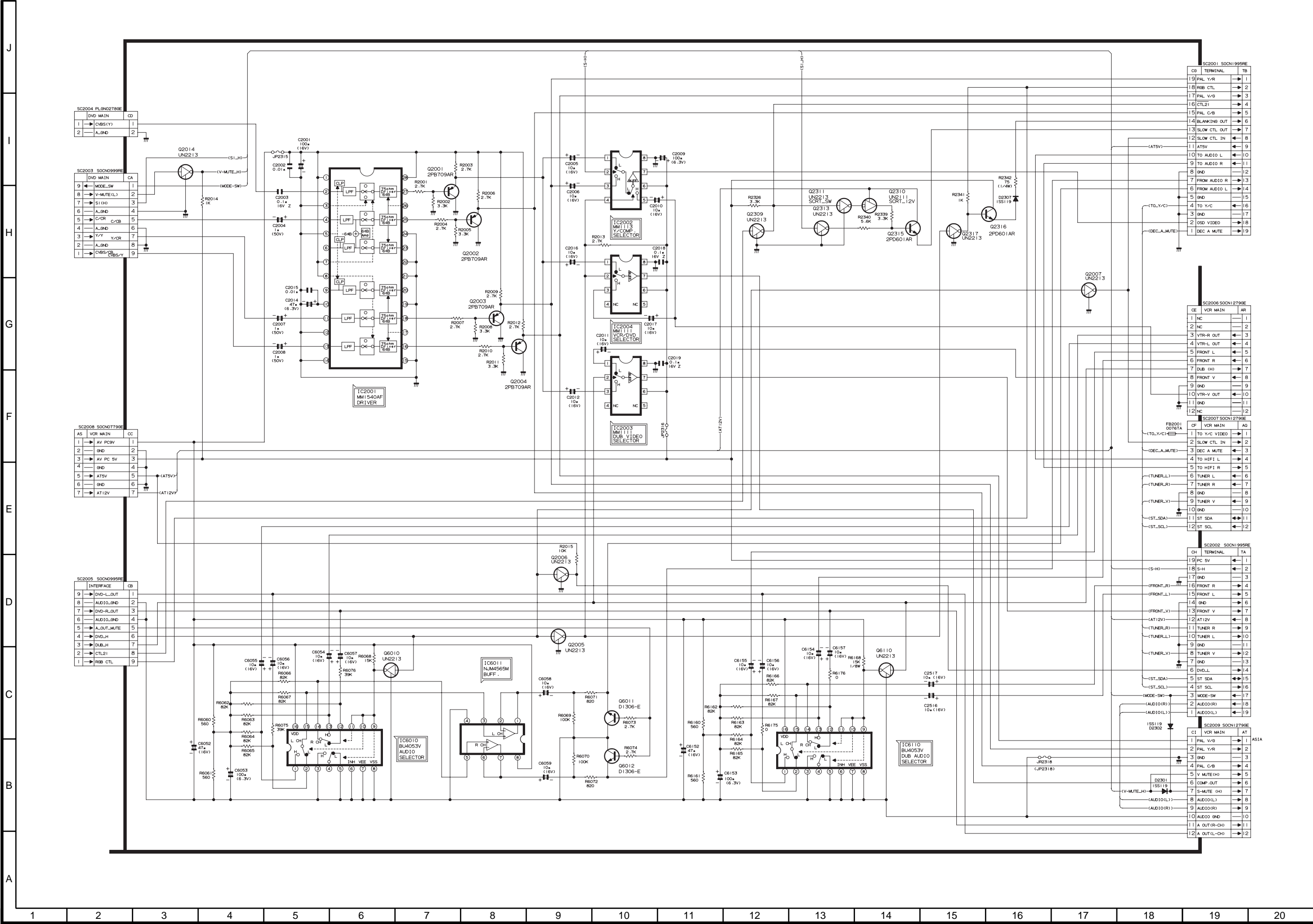
◀ REC Signal



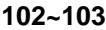




14-5. AV CIRCUIT SCHEMATIC DIAGRAM



⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

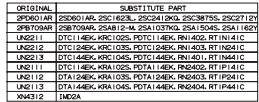


The schematic diagram illustrates the internal circuitry of a DVD player. Key components include:

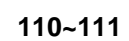
- Power Supply:** A 7805 voltage regulator (IC8201) provides a stable 5V supply for the microprocessor and other logic components.
- Microprocessor & CPU:** The microprocessor (IC8201) and CPU (IC8202) manage the overall system operation, including power control and data processing.
- Audio Section:** An audio DAC (IC6001) converts digital audio data into an analog signal, which is then amplified by an audio amplifier (IC6004) and sent to the speakers.
- Video Section:** The video output is processed by a video DAC (IC6101) and sent to the display.
- Control & Interface:** A remote control interface section (IC6003, IC6004) allows for external control of the player. The display driver (IC6101) controls the DVD display.

The diagram is a comprehensive layout showing the interconnection of these components, with detailed pin connections and component values. A large table on the right side of the diagram lists the pin connections for the main components, organized by function such as Power, Control, Audio, Video, and Display.

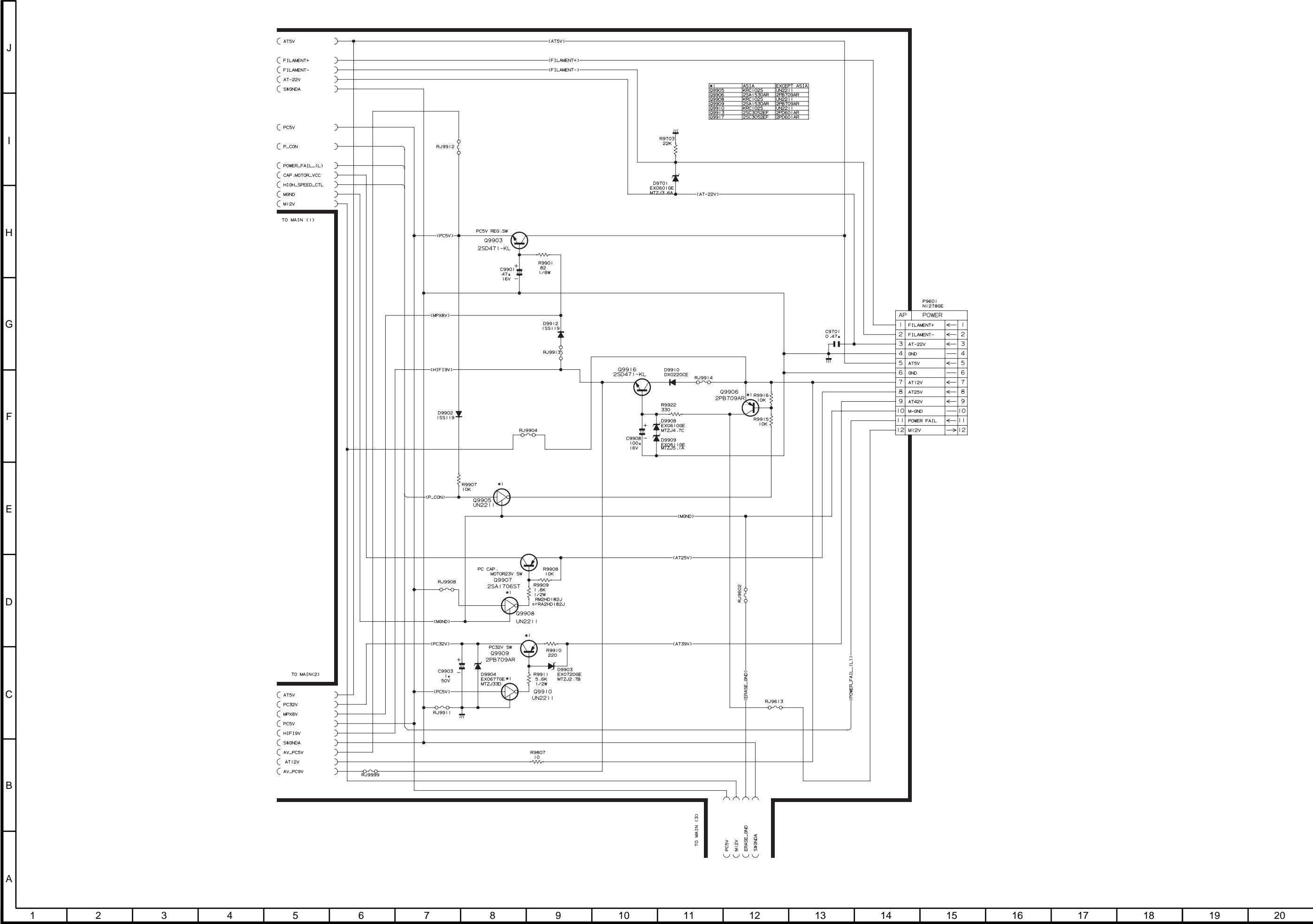
A
B
C
D
E
F
G
H
I
J



⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



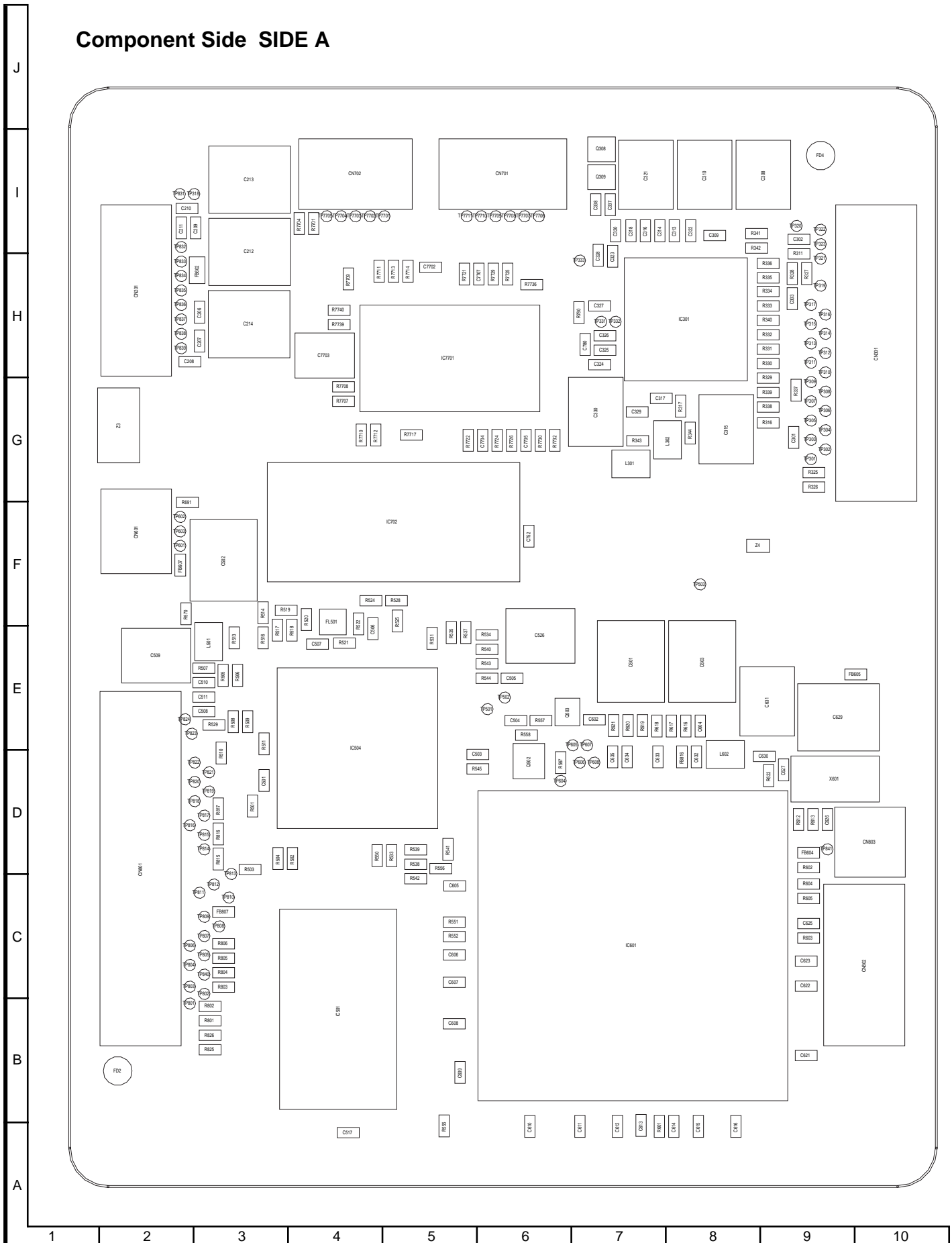
14-12. VCR MAIN (4) CIRCUIT SCHEMATIC DIAGRAM



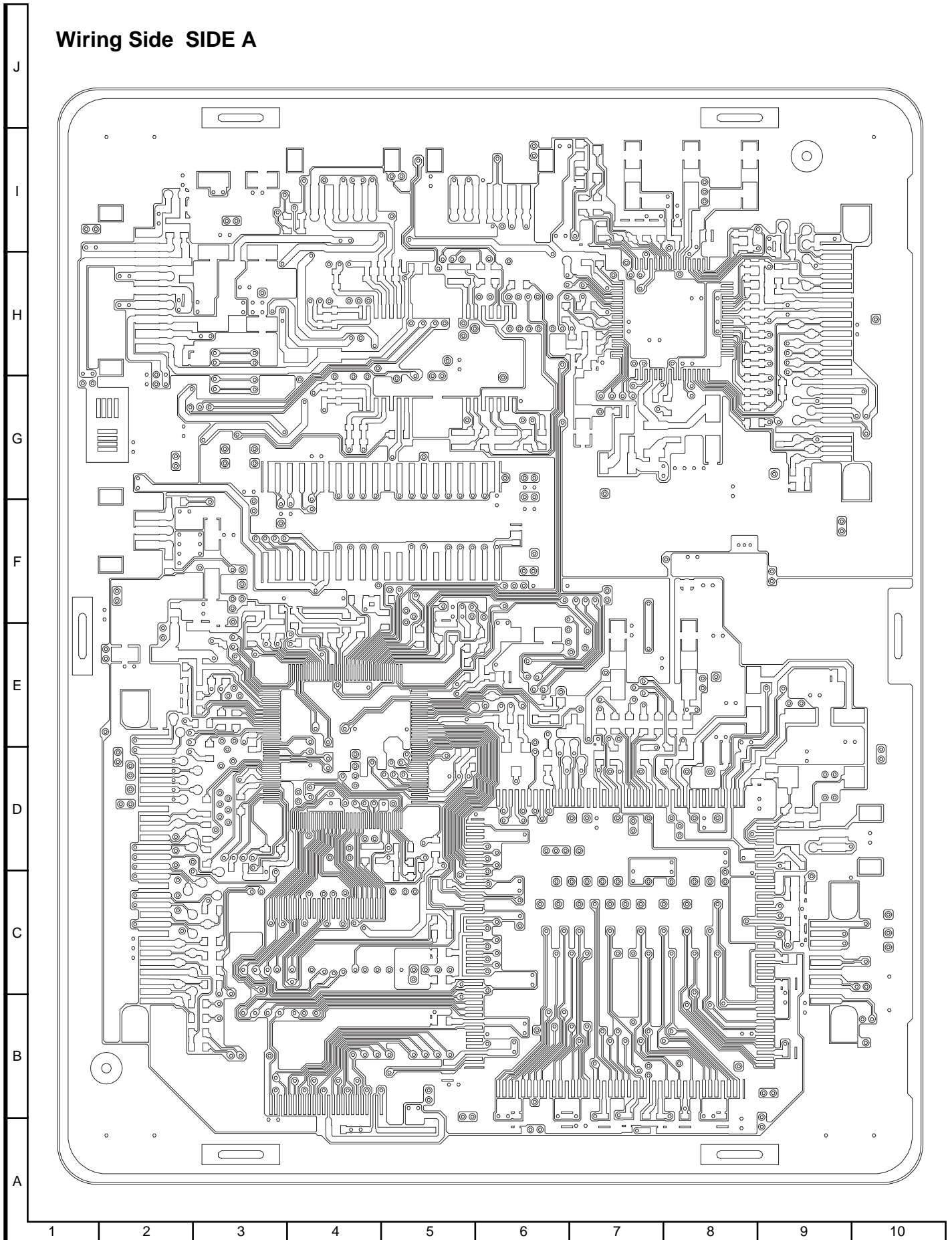
15. PRINTED WIRING BOARD ASSEMBLIES

DVD MAIN PWB

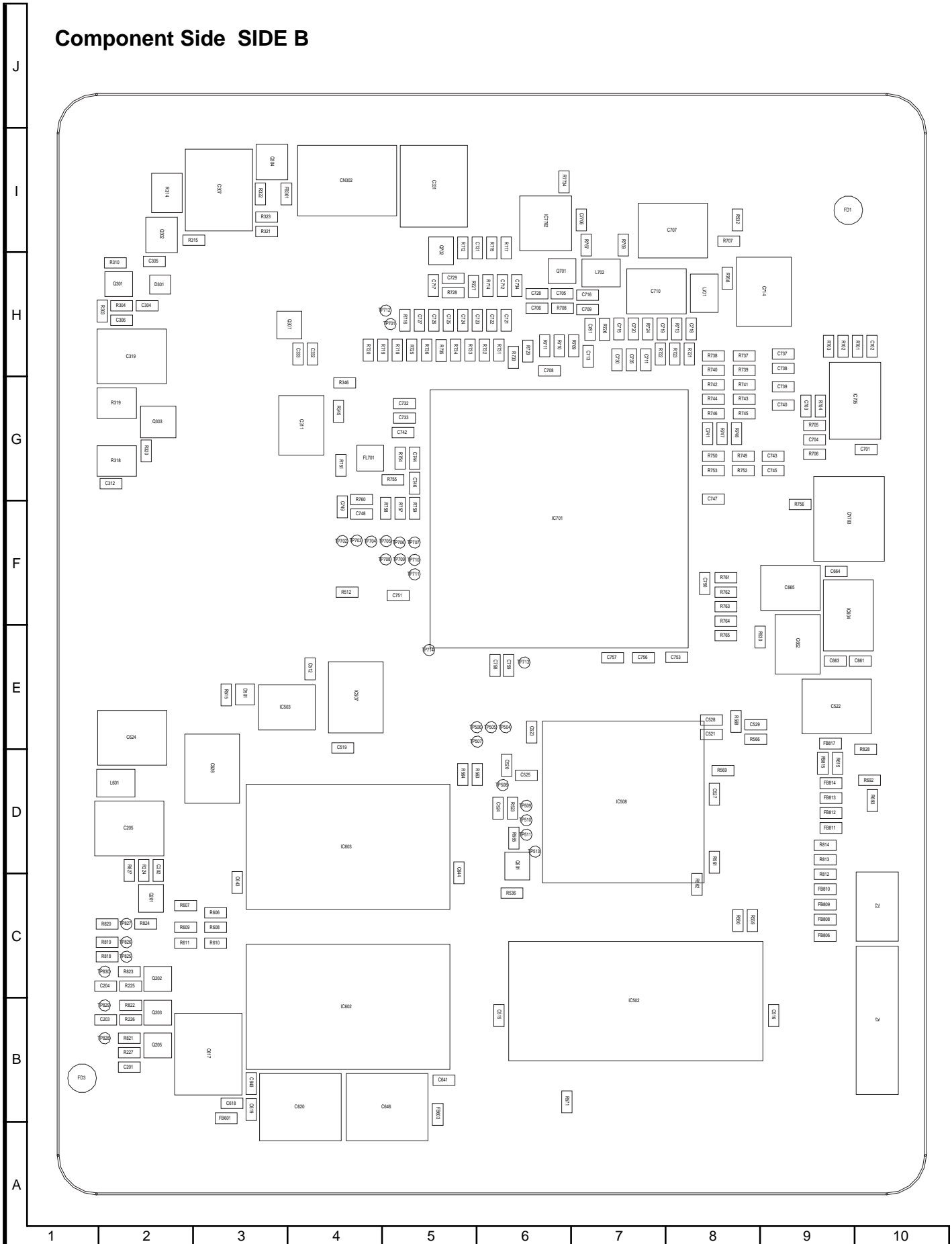
Component Side SIDE A



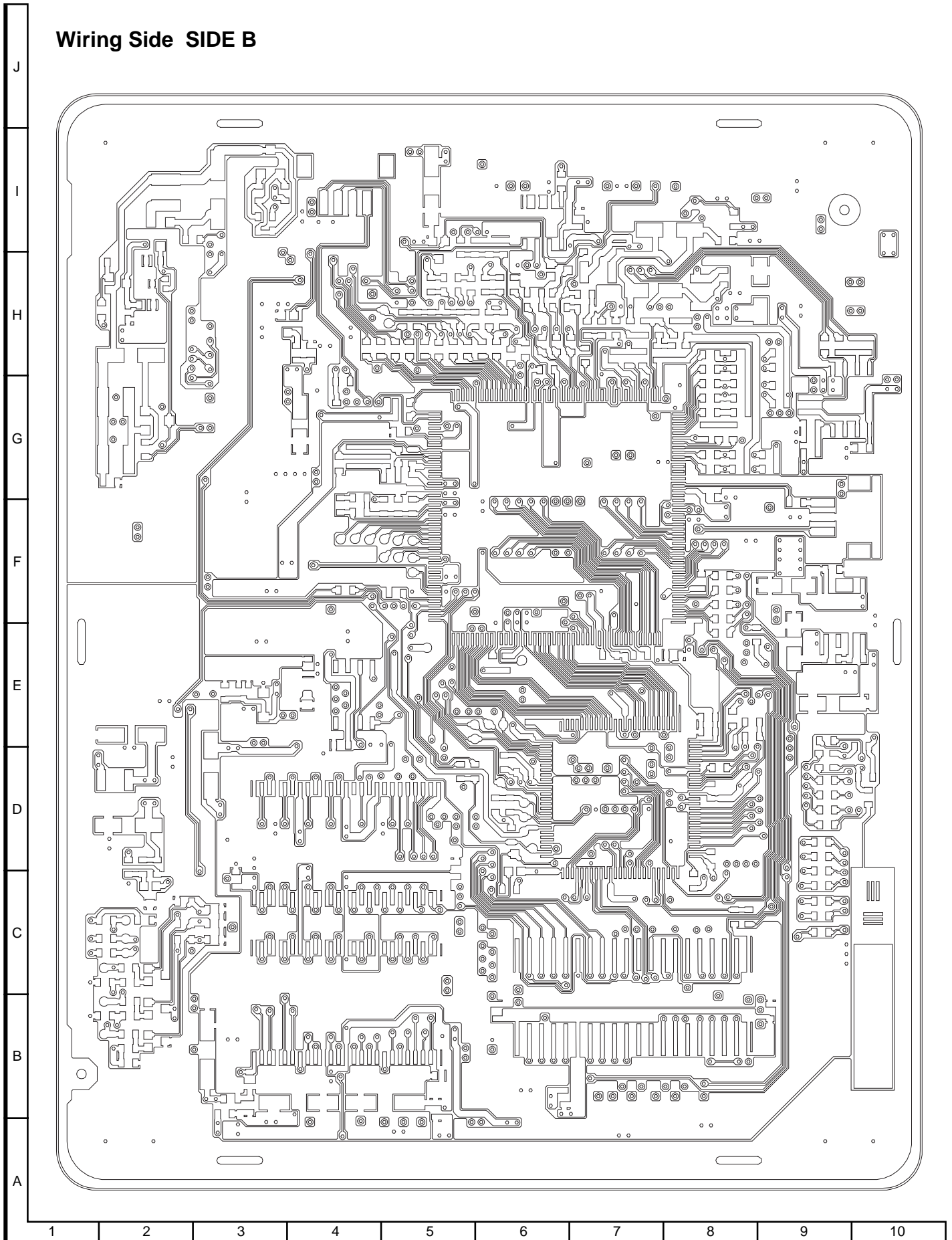
Wiring Side SIDE A



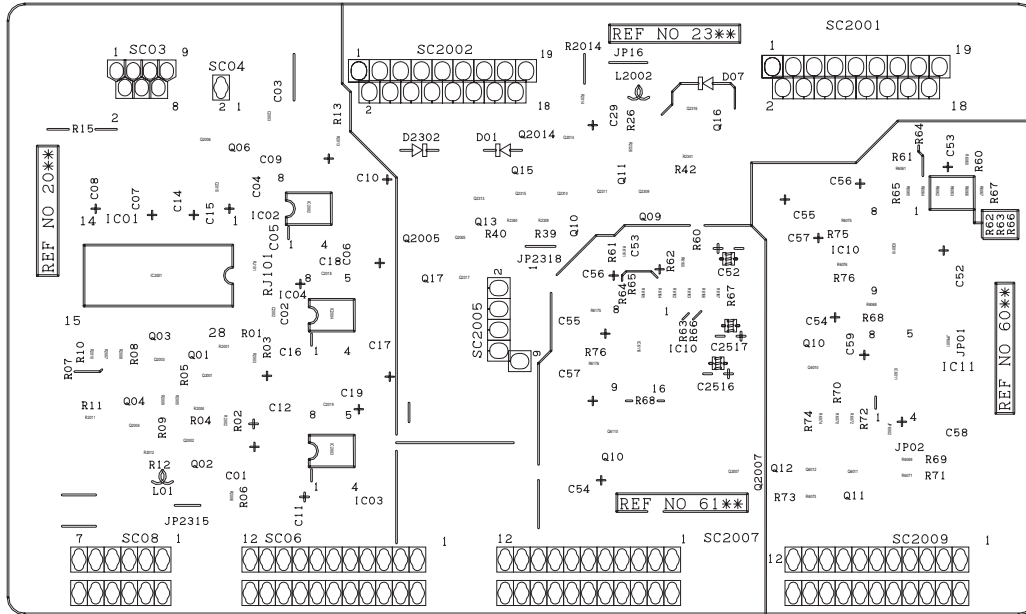
Component Side SIDE B



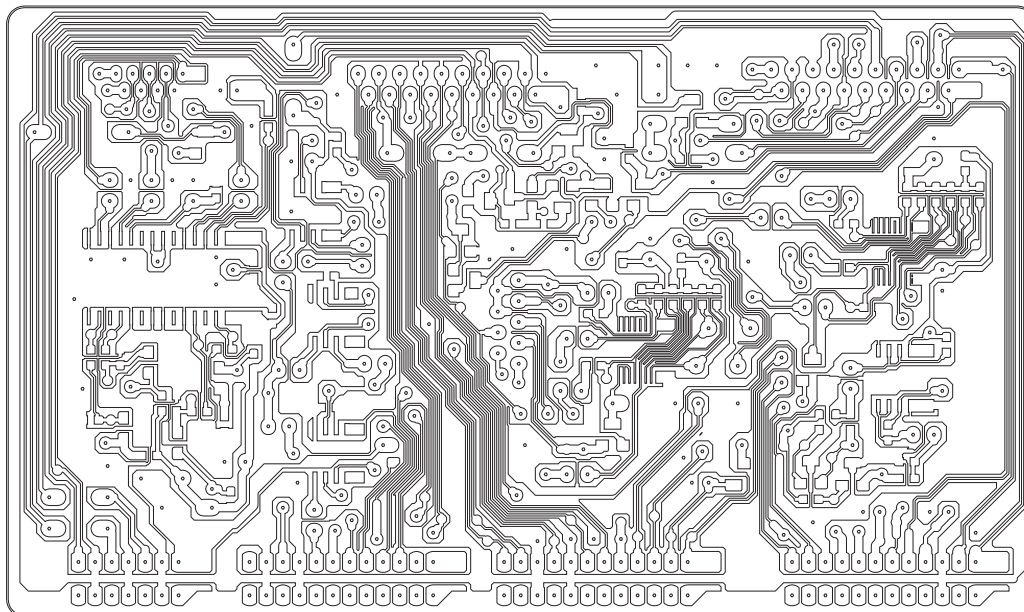
Wiring Side SIDE B



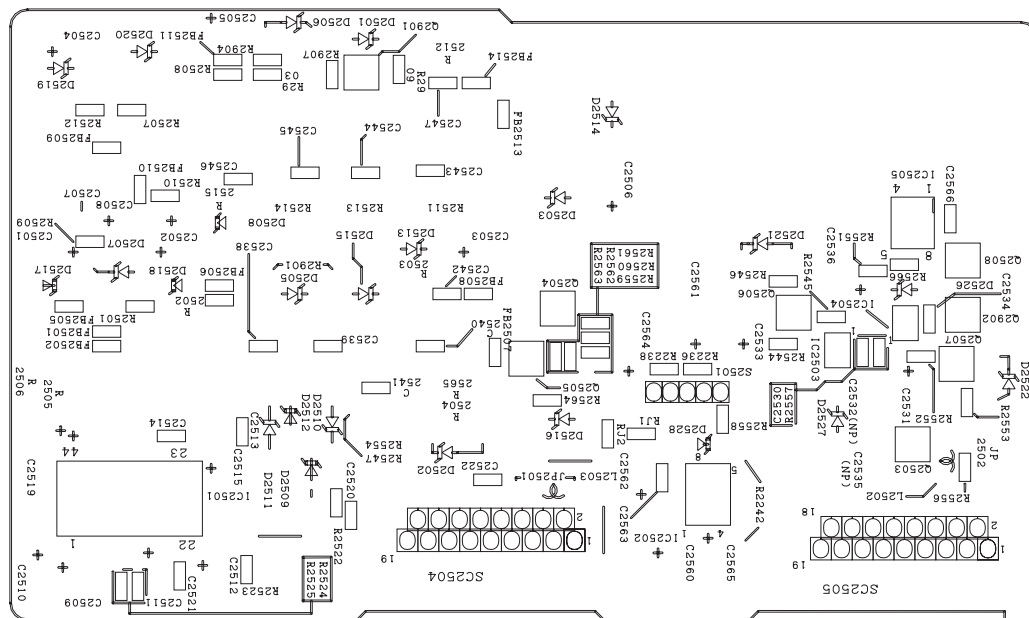
Component Side SIDE B



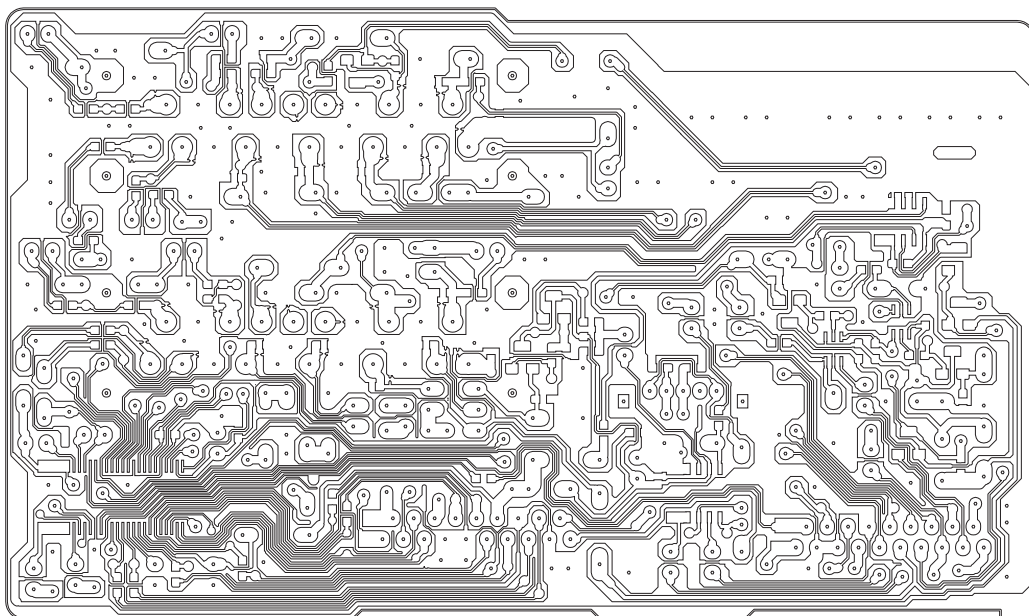
Wiring Side SIDE B



Component Side **SIDE B**

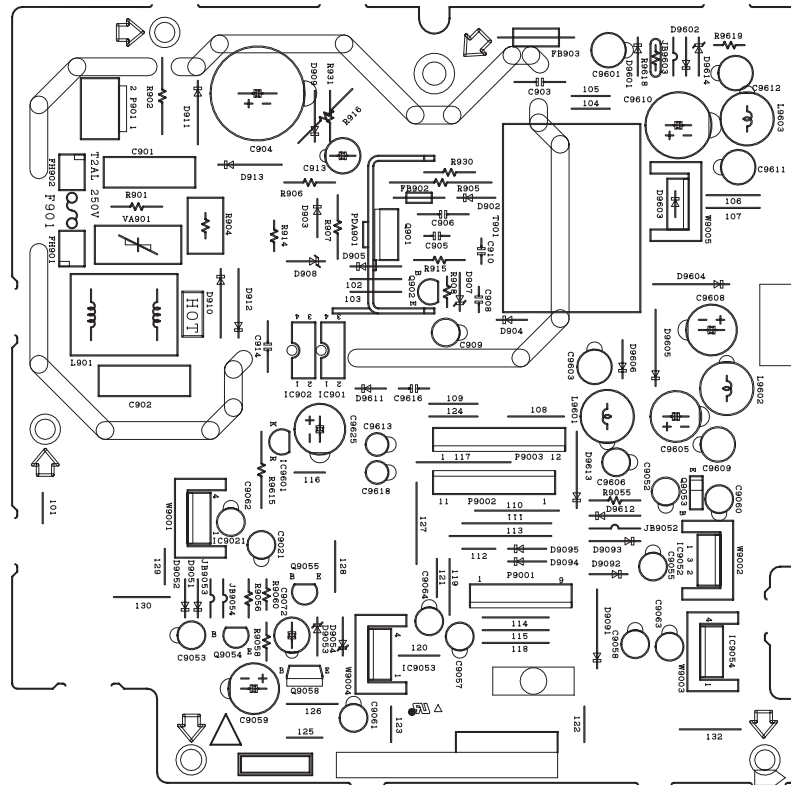


Wiring Side SIDE B

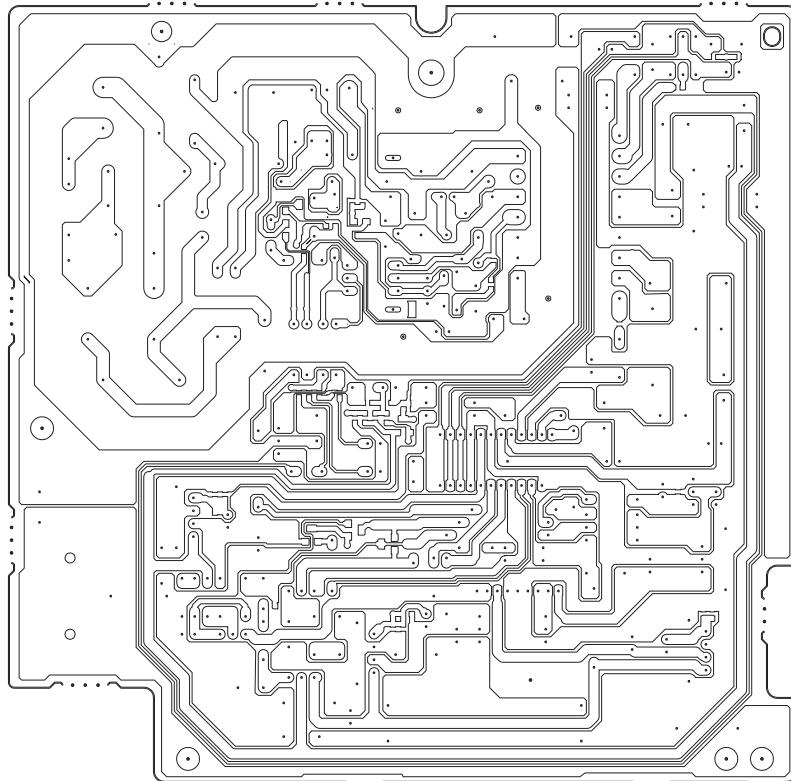


POWER PWB

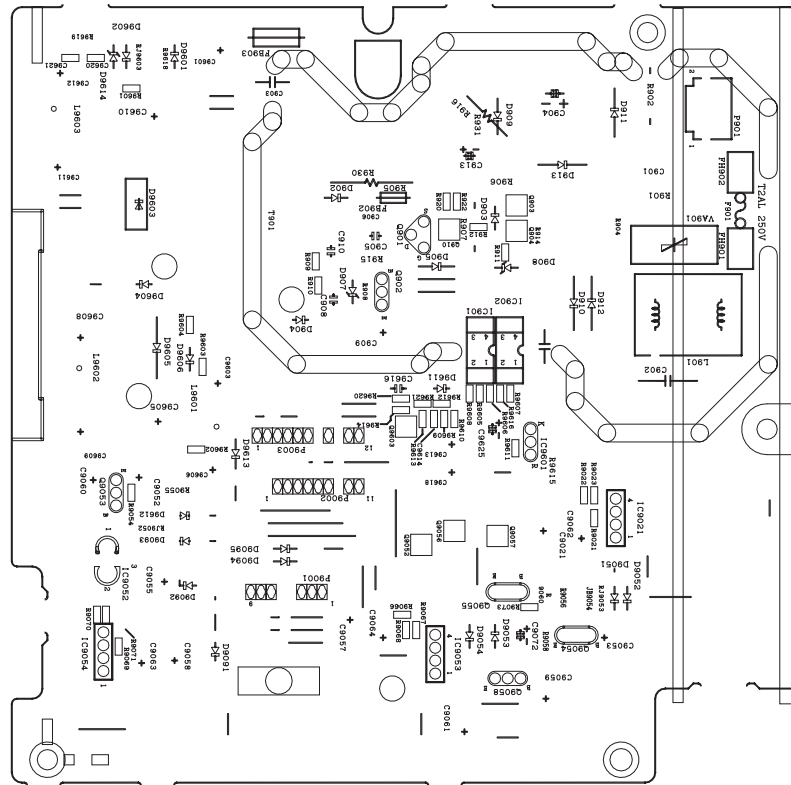
Component Side SIDE A



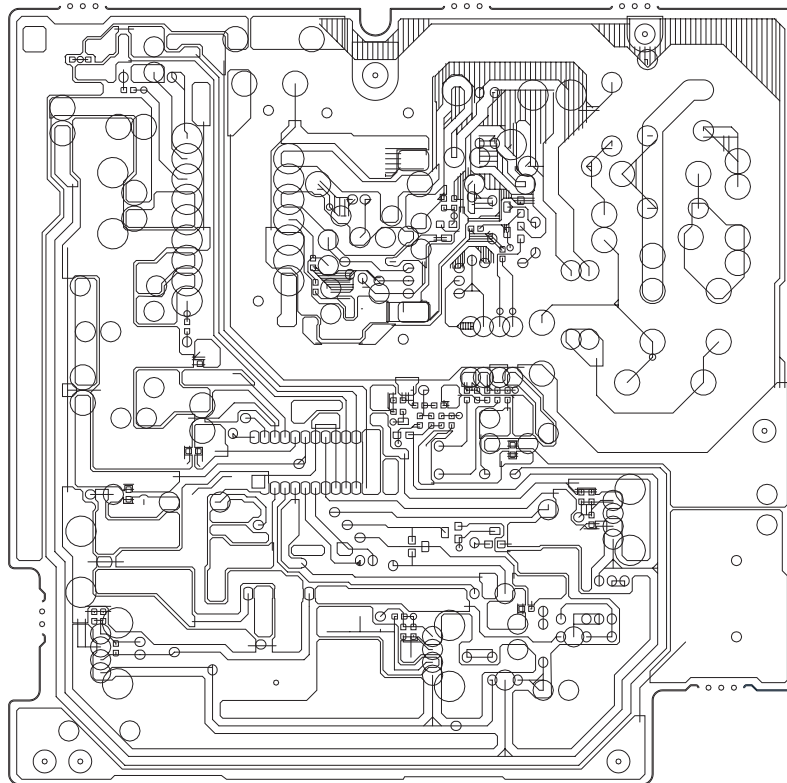
Wiring Side SIDE A



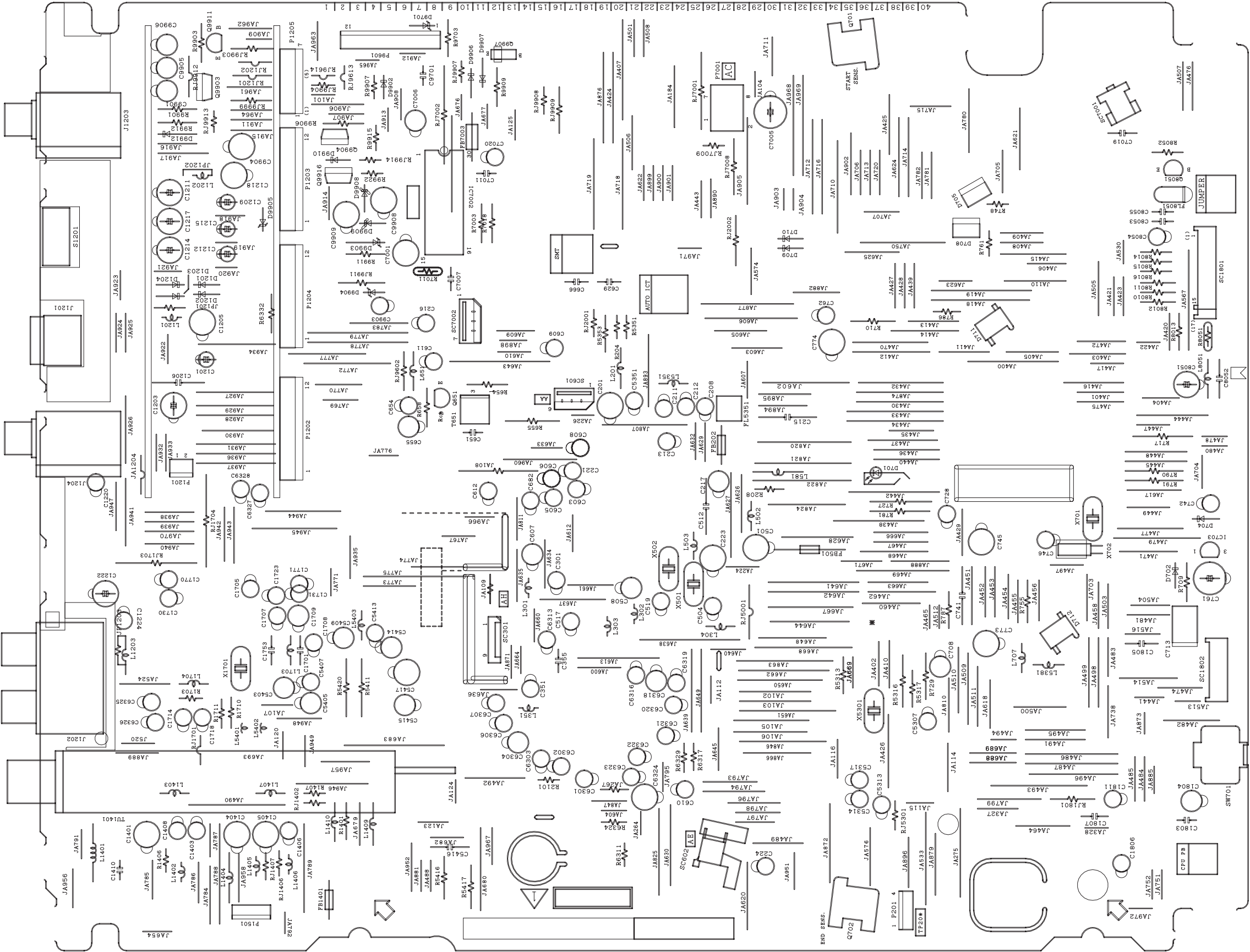
Component Side SIDE B



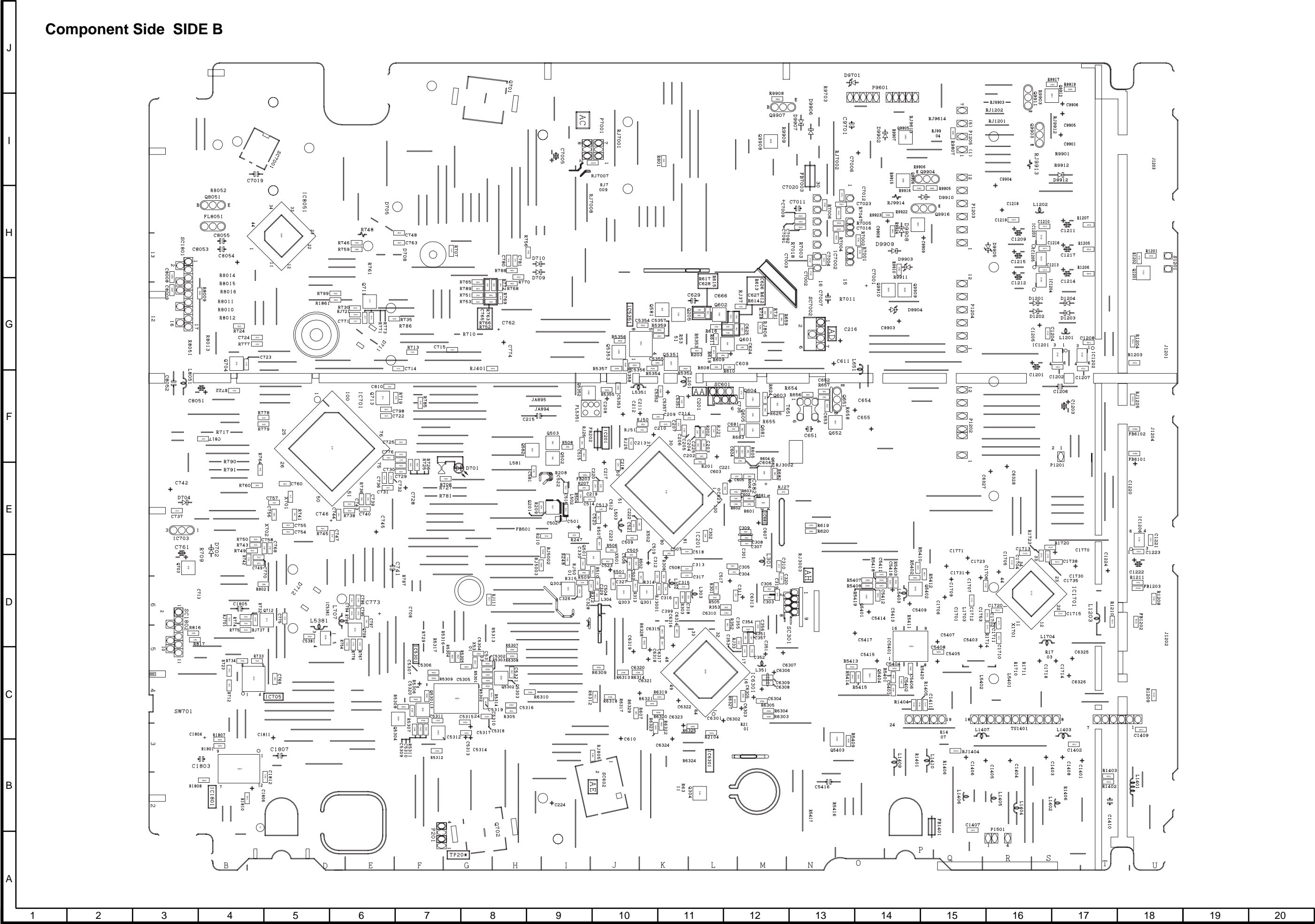
Wiring Side SIDE B



Component Side SIDE A



Component Side SIDE B



16. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

" HOW TO ORDER REPLACEMENT PARTS "

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER	2. REF. NO.
3. PART NO.	4. DESCRIPTION
5. PRICE CODE	

△ MARK: SAFETY RELATED PARTS

PWB ASSEMBLY IS NOT REPLACEMENT ITEM

★ MARK: SPARE PARTS DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)				
	DUNK6054TE6E	—	DVD Main PWB Unit	—
	DUNTKB042TEV1	—	VCR Display PWB Unit (DV-NC55S/H)	—
	DUNTKB086TEV1	—	VCR Display PWB Unit (DV-NC60H)	—
	DUNTKB041TEV1	—	DVD Display PWB Unit (DV-NC55S/H)	—
	DUNTKB085TEV1	—	DVD Display PWB Unit (DV-NC60H)	—
	DUNTKB045TEV1	—	AV PWB Unit	—
	DUNTKB046TEV1	—	Terminal PWB Unit	—
	DUNTKB047TEV1	—	Power PWB Unit (DV-NC55S/H)	—
	DUNTKB087TEV1	—	Power PWB Unit (DV-NC60H)	—
	DUNTKB040TEV1	—	Interface PWB Unit (DV-NC55S/H)	—
	DUNTKB084TEV1	—	Interface PWB Unit (DV-NC60H)	—
	DUNTKB043TEV1	—	VCR Main PWB Unit (DV-NC55H/60H)	—
	DUNTKB043TEV2	—	VCR Main PWB Unit (DV-NC55S)	—
DUNK6054TE6E DVD MAIN PWB UNIT				
INTEGRATED CIRCUITS				
IC301	VHiTA1323F+-1Q	J	TA1323F+, RF Processor	AV
IC501	RH-iX1689GEZZ	J	IX1689GE, Flash ROM 8M	BB
IC502	RH-iX1765GEZZ	J	IX1765GE, Work RAM 4M EDO	AX
IC503	VHiPST600iM-1	J	PST600iM, Reset	AE
IC504	RH-iX1687GEZZ	J	IX1687GE, Micro Com.	BD
IC507	VHiBR93L66F-1	J	BR93L66F, E ² PROM	AH
IC508	RH-iX1761GEZZQ	J	IX1761GE	AW
IC601	RH-iX1720GEZZQ	J	IX1720GE, AV Decoder	BG
IC602	RH-iX0751TAZZ	J	IX0751TA, 16M SDRAM	AX
IC603	RH-iX0751TAZZ	J	IX0751TA, 16M SDRAM	AX
IC701	VHiTC94A03F-1Q	J	TC94A03F, Servo ECC	BC

Ref. No.	Part No.	★	Description	Code
IC702	RH-iX3420CEZZ	J	IX3420CE, 4M EDO DRAM AT	AE
IC705	VHiNJM12904-1	J	NJM12904	AE
IC7701	VHiBA5984FP-1	J	BA5984FP, Motor Driver	AR
IC7702	VHiTC4W53F/-1	J	TC4W53F	AE
TRANSISTORS				
Q201	VS2SA1576A+-1	J	2SA1576A+	AB
Q202	VS2SA1576A+-1	J	2SA1576A+	AB
Q203	VS2SA1576A+-1	J	2SA1576A+	AB
Q205	VS2SA1576A+-1	J	2SA1576A+	AB
Q301	VS2SA1576A+-1	J	2SA1576A+	AB
Q302	VS2SA1298Y/-1	J	2SA1298Y	AB
Q303	VS2SA1298Y/-1	J	2SA1298Y	AB
Q502	VS2SA1298Y/-1	J	2SA1298Y	AB
Q503	VSDTC144EUA-1	J	DTC144EUA	AB
Q701	VSDTC144EUA-1	J	DTC144EUA	AB
Q702	VSDTC144EUA-1	J	DTC144EUA	AB
DIODES				
D301	VHDDAP222//1	J	DAP222	AA
D501	VHDDAN222//1	J	DAN222	AA
PACKAGED CIRCUIT				
X601	RCRSC0039GEZZ★	J	Crystal, CRSC0039GE	AH
FILTER				
FL501	RFILC0207GEZZ	J	Filter, FiLC0207GE	AD
COILS				
L601	VP-NM470K2R0N	J	Peaking, 47μH	AB
L602	VP-NM470K2R0N	J	Peaking, 47μH	AB
CAPACITORS				
C204	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C205	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C206	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C207	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C208	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C209	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C210	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C211	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C212	RC-EZ0475GEZZ	J	220 6.3V Electrolytic	AD
C213	RC-EZ0475GEZZ	J	220 6.3V Electrolytic	AD
C214	RC-EZ0475GEZZ	J	220 6.3V Electrolytic	AD
C302	VCKYCY0JF105Z	J	1 6.3V Ceramic	AB
C303	VCKYCY0JF105Z	J	1 6.3V Ceramic	AB
C306	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C307	VCEAPF0JW107M	J	100 6.3V Electrolytic	AC
C308	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C309	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C310	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C311	VCEAPF1HW225M	J	2.2 50V Electrolytic	AB
C312	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C313	VCKYCY1HB102K	J	1000p 50V Ceramic	AA
C314	VCKYCY1HB102K	J	1000p 50V Ceramic	AA
C315	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C316	VCKYCY1HB102K	J	1000p 50V Ceramic	AA
C317	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C318	VCKYCY1HB102K	J	1000p 50V Ceramic	AA
C319	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C320	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C321	VCEAPF0JW476M	J	47 6.3V Electrolytic	AB
C322	VCKYCY1HB103K	J	0.01 50V Ceramic	AA
C323	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C324	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C325	VCKYCY1HB472K	J	4700p 50V Ceramic	AA
C326	VCKYCY1HB472K	J	4700p 50V Ceramic	AA
C328	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C332	VCKYCY1HB102K	J	1000p 50V Ceramic	AA
C501	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C502	VCEAPF0JW107M	J	100 6.3V Electrolytic	AC
C503	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C504	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C506	VCKYCY1CB104K	J	0.1 16V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTK6054TE6E									
DVD MAIN PWB UNIT(Continued)									
C508	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C726	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C510	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C727	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C511	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C728	VCCCY1HH221J	J 220p	50V Ceramic	AA
C512	VCKYCY0JF105Z	J 1	6.3V Ceramic	AB	C729	VCKYCY1HB472K	J 4700p	50V Ceramic	AA
C515	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C730	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C516	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C731	VCKYCY1HB102K	J 1000p	50V Ceramic	AA
C517	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C732	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C519	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C733	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C520	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C734	VCCCY1HH561J	J 560p	50V Ceramic	AB
C521	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C735	VCKYCY1HB103K	J 0.01	50V Ceramic	AA
C522	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	C741	VCKYCY1HB103K	J 0.01	50V Ceramic	AA
C523	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C742	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C524	VCKYCY1HB472K	J 4700p	50V Ceramic	AA	C744	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C525	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C746	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C526	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	C747	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C527	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C748	VCKYCY1HB103K	J 0.01	50V Ceramic	AA
C528	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C749	VCKYCY1HB103K	J 0.01	50V Ceramic	AA
C529	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	C750	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C602	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C751	VCKYCY1HB102K	J 1000p	50V Ceramic	AA
C603	RC-EZ0475GEZZ	J 220	6.3V Electrolytic	AD	C752	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C604	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C753	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C605	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C756	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C606	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C757	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C609	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C758	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C610	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C759	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C613	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C7702	VCKYCY1HB103K	J 0.01	50V Ceramic	AA
C614	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C7703	VCEAPF1CW106M	J 10	16V Electrolytic	AB
C617	RC-EZ0475GEZZ	J 220	6.3V Electrolytic	AD	C7704	VCCCY1HH101J	J 100p	50V Ceramic	AA
C618	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C7705	VCCCY1HH221J	J 220p	50V Ceramic	AA
C619	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	C7706	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C620	RC-EZ0475GEZZ	J 220	6.3V Electrolytic	AD	FL701	RCRMC0001GEZZ*	J	Ceramic Vibrator	AD
C621	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	RESISTORS				
C623	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R224	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
C624	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	R225	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
C625	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R226	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
C626	VCCCY1HH100D	J 10p	50V Ceramic	AA	R227	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
C627	VCCCY1HH100D	J 10p	50V Ceramic	AA	R303	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA
C628	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	R310	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
C629	RC-EZ0475GEZZ	J 220	6.3V Electrolytic	AD	R311	VRS-CY1JF335J	J 3.3M	1/16W Metal Oxide	AA
C630	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R314	VRS-TW2ED330J	J 33	1/4W Metal Oxide	AA
C631	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	R315	VRS-CY1JF471J	J 470	1/16W Metal Oxide	AA
C632	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R316	VRS-CY1JF335J	J 3.3M	1/16W Metal Oxide	AA
C633	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R317	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C635	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R318	VRS-TW2ED470J	J 47	1/4W Metal Oxide	AA
C640	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R319	VRS-TW2ED470J	J 47	1/4W Metal Oxide	AA
C641	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R320	VRS-CY1JF471J	J 470	1/16W Metal Oxide	AA
C643	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R325	VRS-CY1JF820J	J 82	1/16W Metal Oxide	AA
C644	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R326	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
C646	VCEAPF0JW107M	J 100	6.3V Electrolytic	AC	R327	VRS-CY1JF820J	J 82	1/16W Metal Oxide	AA
C701	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	R328	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
C702	VCCCY1HH820J	J 82p	50V Ceramic	AA	R343	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
C703	VCCCY1HH820J	J 82p	50V Ceramic	AA	R344	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
C704	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	R345	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
C705	VCCCY1HH221J	J 220p	50V Ceramic	AA	R501	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
C706	VCCCY1HH221J	J 220p	50V Ceramic	AA	R502	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C707	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	R503	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C708	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R504	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C709	VCCCY1HH221J	J 220p	50V Ceramic	AA	R505	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
C710	VCEAPF1CW106M	J 10	16V Electrolytic	AB	R506	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
C711	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R507	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
C712	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R508	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
C713	VCKYCY1HB103K	J 0.01	50V Ceramic	AA	R509	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
C714	VCEAPF0JW476M	J 47	6.3V Electrolytic	AB	R510	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
C715	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R511	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C716	VCCCY1HH221J	J 220p	50V Ceramic	AA	R513	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
C717	VCKYCY1HB472K	J 4700p	50V Ceramic	AA	R514	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
C718	VCKYCY1HB153K	J 0.015	50V Ceramic	AA	R515	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA
C720	VCKYCY1HB682K	J 6800p	50V Ceramic	AA	R516	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C721	VCKYCY1HB153K	J 0.015	50V Ceramic	AA	R517	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
C722	VCKYCY1HB153K	J 0.015	50V Ceramic	AA	R518	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
C723	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R519	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
C725	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R520	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
					R522	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
					R523	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTK6054TE6E									
DVD MAIN PWB UNIT(Continued)									
R524	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R728	VRS-CY1JF331J	J 330	1/16W Metal Oxide	AA
R525	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R729	VRS-CY1JF393J	J 39k	1/16W Metal Oxide	AA
R528	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R730	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA
R529	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R731	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA
R530	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R732	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R531	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R734	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R532	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R735	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R533	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R736	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R534	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R737	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R535	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R738	VRS-CY1JF333F	J 33k	1/16W Metal Oxide	AA
R536	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R739	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
R537	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R740	VRS-CY1JF473F	J 47k	1/16W Metal Oxide	AA
R538	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R741	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R540	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R742	VRS-CY1JF333F	J 33k	1/16W Metal Oxide	AA
R541	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R743	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA
R543	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R744	VRS-CY1JF473F	J 47k	1/16W Metal Oxide	AA
R544	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R745	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R545	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R746	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R552	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R747	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R555	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R748	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA
R556	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R749	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R557	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA	R750	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA
R558	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R751	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R560	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R752	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R561	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R753	VRS-CY1JF334J	J 330k	1/16W Metal Oxide	AA
R564	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA	R754	VRS-CY1JF105J	J 1M	1/16W Metal Oxide	AA
R565	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R755	VRS-CY1JF471J	J 470	1/16W Metal Oxide	AA
R566	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R756	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R568	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA	R757	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R569	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA	R758	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R570	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R759	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R571	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R760	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R601	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA	R761	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R602	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R762	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R603	VRS-CY1JF560F	J 56	1/16W Metal Oxide	AA	R763	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R604	VRS-CY1JF391F	J 390	1/16W Metal Oxide	AA	R764	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R607	VRS-CY1JF560F	J 56	1/16W Metal Oxide	AA	R765	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R608	VRS-CY1JF560F	J 56	1/16W Metal Oxide	AA	R768	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R610	VRS-CY1JF560F	J 56	1/16W Metal Oxide	AA	R769	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R612	VRS-CY1JF684J	J 680k	1/16W Metal Oxide	AA	R780	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
R613	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA	R820	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
R615	VRS-CY1JF221J	J 220	1/16W Metal Oxide	AA	R821	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R616	VRS-CY1JF391J	J 390	1/16W Metal Oxide	AA	R822	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R617	VRS-CY1JF221J	J 220	1/16W Metal Oxide	AA	R823	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R620	VRS-CY1JF221J	J 220	1/16W Metal Oxide	AA	R824	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R621	VRS-CY1JF221J	J 220	1/16W Metal Oxide	AA	R825	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
R622	VRS-CY1JF180J	J 18	1/16W Metal Oxide	AA	R827	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R701	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA	R7717	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R702	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R7721	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R703	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	R7722	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R704	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA	R7724	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA
R705	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA	R7725	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R706	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA	R7726	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R707	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R7729	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R708	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA	R7730	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
R709	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA	R7732	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R710	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA	R7734	VRS-CY1JF822J	J 8.2k	1/16W Metal Oxide	AA
R711	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA	R7736	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R712	VRS-CY1JF822J	J 8.2k	1/16W Metal Oxide	AA	BALUNES				
R713	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	FB301	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R714	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA	FB601	RBLN-0061TAZZ	J Balun, BLN-0061TA		AD
R715	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA	FB602	RBLN-0052TAZZ	J Balun, BLN-0052TA		AC
R716	VRS-CY1JF181J	J 180	1/16W Metal Oxide	AA	FB603	RBLN-0061TAZZ	J Balun, BLN-0061TA		AD
R717	VRS-CY1JF183J	J 18k	1/16W Metal Oxide	AA	FB605	RBLN-0061TAZZ	J Balun, BLN-0061TA		AD
R718	VRS-CY1JF151J	J 150	1/16W Metal Oxide	AA	FB806	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R719	VRS-CY1JF151J	J 150	1/16W Metal Oxide	AA	FB807	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R720	VRS-CY1JF151J	J 150	1/16W Metal Oxide	AA	FB808	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R721	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA	FB809	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R724	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA	FB810	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R725	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	FB813	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R726	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	FB814	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
R727	VRS-CY1JF331J	J 330	1/16W Metal Oxide	AA	FB815	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
					FB816	RBLN-0076TAZZ	J Balun, BLN-0076TA		AC
					FB817	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB

Ref. No.	Part No.	★	Description	Code
DUNTK6054TE6E DVD MAIN PWB UNIT(Continued)				
R801	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R802	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R803	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R804	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R805	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R806	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R812	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R813	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R814	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R815	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R816	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R817	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R818	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
R819	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
MISCELLANEOUS PARTS				
CN201	QPLGN0964TAZZ	J	Plug, 9Pin	AF
CN301	QSOCN2336TAZZ*	J	Socket, 23Pin	AF
CN302	QPLGN0464TAZZ	J	Plug, 4Pin	AC
CN701	QPLGN0664TAZZ	J	Plug, 6Pin	AD
CN702	QPLGN0564TAZZ	J	Plug, 5Pin	AC
CN703	QPLGN0364TAZZ	J	Plug, 3Pin	AC
CN801	QSOCN2936TAZZ	J	Socket, 29Pin	AF
CN802	QSOCN0936TAZZ	J	Socket, 9Pin	AD
CN803	QPLGN0264TAZZ	J	Plug, 2Pin	AC

DUNTKB042TEV1(DV-NC55S/H)
DUNTKB086TEV1(DV-NC60H)
VCR DISPLAY PWB UNIT

INTEGRATED CIRCUIT				
IC5101	VHiMN12512+-1	J	MN12512+, Fip Driver	AM
TRANSISTORS				
Q5101	VSKRC102S//-1	J	KRC102S	AA
Q5102	VSKRC102S//-1	J	KRC102S	AA
LED				
DG5101	VVK20U106SB-1	J	Display	AU
COILS				
L5101	VP-XF100J0000	J	Peaking, 10μH	AB
L5102	VP-XF100J0000	J	Peaking, 10μH	AB
CAPACITORS				
C5101	VCEA9M1CW106M	J	10 16V Electrolytic	AB
C5102	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C5103	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C5104	VCEA0A0JW477M	J	470 6.3V Electrolytic	AC
C5115	VCCCCY1HH101J	J	100p 50V Ceramic	AA
C5116	VCCCCY1HH101J	J	100p 50V Ceramic	AA
RESISTORS				
R5102	VRS-CY1JF750J	J	75 1/16W Metal Oxide	AA
R5103	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R5104	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R5105	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R5106	VRD-RA2BE101J	J	100 1/8W Carbon	AB
R5107	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R5108	VRD-RA2BE472J	J	4.7k 1/8W Carbon	AA
R5109	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R5110	VRD-RA2BE103J	J	10k 1/8W Carbon	AA
			(NC55S/H)	
R5110	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
			(NC60H)	
R5111	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R5112	VRD-RA2BE563J	J	56k 1/8W Carbon	AA
R5114	VRD-RA2BE272J	J	2.7k 1/8W Carbon	AA
R5115	VRD-RA2EE2R7J	J	2.7 1/4W Carbon	AA

Ref. No.	Part No.	★	Description	Code
R5116	VRD-RA2BE822J	J	8.2k 1/8W Carbon	AA
			(NC60H)	
R5116	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
			(NC55S/H)	
R5117	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R5118	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R5119	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
BALUN				
FB5101	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
SWITCHES				
S5101	QSW-K0003AJZZ	J	Switch, POWER	AB
S5102	QSW-K0003AJZZ	J	Switch, EJECT/STOP	AB
S5103	QSW-K0003AJZZ	J	Switch, CH-	AB
S5104	QSW-K0003AJZZ	J	Switch, CH+	AB
S5106	QSW-K0003AJZZ	J	Switch, PLAY	AB
S5107	QSW-K0003AJZZ	J	Switch, REC(NC60H)	AB
S5108	QSW-K0003AJZZ	J	Switch, REW	AB
MISCELLANEOUS PARTS				
CN5101	QSOCN1195REZZ	J	Socket, 11Pin	AC
CN5102	QSOCN1199REZZ	J	Socket, 11Pin	AD
CN5103	QSOCN1595REZZ	J	Socket, 15Pin	AD
J5101	QJAKE0190CEZZ	J	Jack, VIDEO IN	AE
J5102	QJAKE0257GEZZ	J	Jack, AUDIO IN(L)	AE
J5103	QJAKE0180CEZZ	J	Jack, AUDIO IN(R)	AE
RMC5101	RRMCU0233CEZZ	J	Remote Receiver	AF

DUNTKB041TEV1(DV-NC55S/H)
DUNTKB085TEV1(DV-NC60H)
DVD DISPLAY PWB UNIT

INTEGRATED CIRCUIT				
IC5001	VHiPT6312LQ-1	J	PT6312LQ, FL Driver	AM
TRANSISTORS				
Q5003	VSKRC102S//-1	J	KRC102S	AA
Q5004	VSKRC102S//-1	J	KRC102S	AA
Q5005	VSKRC102S//-1	J	KRC102S	AA
Q5006	VSKRC102S//-1	J	KRC102S	AA
Q5007	VSKRC102S//-1	J	KRC102S	AA
DIODES AND LED'S				
DG5001	VVK06SS72T+-1	J	Display	AS
D5001	RH-PX0432GEZZ+	J	PhotoDiode, DUB LED	AC
D5002	VHPSEL1913K-1+	J	PhotoDiode, DVD LED	AD
			(NC55S/H)	
D5003	VHD1SS119//-1	J	1SS119	AB
D5004	RH-EX0601GEZZ	J	Zener, EX0601GE	AA
D5005	VHPSEL4914D-1+	J	PhotoDiode, DVD LED	AD
			(NC60H)	
CAPACITORS				
C5005	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C5006	VCEA9M1CW106M	J	10 16V Electrolytic	AB
C5007	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C5008	VCCCCY1HH330J	J	33p 50V Ceramic	AA
C5009	VCCCCY1HH330J	J	33p 50V Ceramic	AA
C5010	VCCCCY1HH330J	J	33p 50V Ceramic	AA
C5011	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
RESISTORS				
R5001	VRD-RA2BE102J	J	1k 1/8W Carbon	AA
R5002	VRD-RA2BE181J	J	180 1/8W Carbon	AA
			(NC55S/H)	
R5003	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R5010	VRS-CY1JF104J	J	100k 1/16W Metal Oxide	AA
R5011	VRD-RA2BE103J	J	10k 1/8W Carbon	AA
R5012	VRD-RA2BE103J	J	10k 1/8W Carbon	AA
R5013	VRD-RA2BE103J	J	10k 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code
DUNTKB041TEV1(DV-NC55S/H) DUNTKB085TEV1(DV-NC60H) DVD DISPLAY PWB UNIT				
R5014	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA
R5015	VRS-CY1JF183J	J 18k	1/16W Metal Oxide	AA
R5016	VRD-RM2HD2R7J	J 2.7	1/2W Carbon	AA
R5017	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R5018	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R5019	VRD-RA2BE181J	J 180	1/8W Carbon	AA
			(NC60H)	
SWITCHES				
S5001	QSW-K0003AJZZ	J	Switch, OPEN/CLOSE	AB
S5002	QSW-K0003AJZZ	J	Switch, PLAY	AB
S5003	QSW-K0003AJZZ	J	Switch, STOP	AB
MISCELLANEOUS PARTS				
CN5001	QSOCN2399REZZ	J	Socket, 23Pin	AE
CN5002	QSOCN1199REZZ	J	Socket, 11Pin	AD

DUNTKB045TEV1 AV PWB UNIT				
INTEGRATED CIRCUITS				
IC2001	VHiMM1540AF-1	J	MM1540AF, Driver	AN
IC2002	VHiMM1113XF1E	J	MM1113XF, Y/COMP. Selector	AE
IC2003	VHiMM1111XF1E	J	MM1111XF, DUB Video Selector	AE
IC2004	VHiMM1111XF1E	J	MM1111XF, VCR/DVD Selector	AE
IC6010	VHiBU4053V/-1	J	BU4053V, Audio Selector	AE
IC6011	VHiNJM4565M-1*	J	NJM4565M, BUFF	AD
IC6110	VHiBU4053V/-1	J	BU4053V, DVD Audio Selector	AE
TRANSISTORS				
Q2001	VS2PB709AR/-1	J	2PB709AR	AB
Q2002	VS2PB709AR/-1	J	2PB709AR	AB
Q2003	VS2PB709AR/-1	J	2PB709AR	AB
Q2004	VS2PB709AR/-1	J	2PB709AR	AB
Q2005	VSUN2213///-1	J	UN2213	AA
Q2006	VSUN2213///-1	J	UN2213	AA
Q2007	VSUN2213///-1	J	UN2213	AA
Q2014	VSUN2213///-1	J	UN2213	AA
Q2309	VSUN2213///-1	J	UN2213	AA
Q2310	VSUN2111///-1	J	UN2111	AA
Q2311	VSUN2213///-1	J	UN2213	AA
Q2313	VSUN2213///-1	J	UN2213	AA
Q2315	VS2PD601AR/-1	J	2PD601AR	AB
Q2316	VS2PD601AR/-1	J	2PD601AR	AB
Q2317	VSUN2213///-1	J	UN2213	AA
Q6010	VSUN2213///-1	J	UN2213	AA
Q6011	VS2SD1306-E1E	J	2SD1306-E	AD
Q6012	VS2SD1306-E1E	J	2SD1306-E	AD
Q6110	VSUN2213///-1	J	UN2213	AA
DIODES				
D2301	VHD1SS119//1	J	1SS119	AB
D2302	VHD1SS119//1	J	1SS119	AB
D2307	VHD1SS119//1	J	1SS119	AB
CAPACITORS				
C2001	VCEA9M1CW107M	J 100	16V Electrolytic	AB
C2002	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
C2003	VCKYCY1CF104Z	J 0.1	16V Ceramic	AA
C2004	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2005	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2006	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2007	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2008	VCEA9M1HW105M	J 1	50V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code
C2009	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C2010	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2011	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2012	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2014	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB
C2015	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
C2016	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2017	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2018	VCKYCY1CF104Z	J 0.1	16V Ceramic	AA
C2019	VCKYCY1CF104Z	J 0.1	16V Ceramic	AA
C2516	VCEA9A1CW106M	J 10	16V Electrolytic	AB
C2517	VCEA9A1CW106M	J 10	16V Electrolytic	AB
C6052	VCEA9M1CW476M	J 47	16V Electrolytic	AB
C6053	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C6054	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6055	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6056	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6057	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6058	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6059	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6152	VCEA9A1CW476M	J 47	16V Electrolytic	AB
C6153	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C6154	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6155	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6156	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6157	VCEA9M1CW106M	J 10	16V Electrolytic	AB
RESISTORS				
R2001	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2002	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2003	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2004	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2005	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2006	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2007	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2008	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2009	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2010	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2011	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2012	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2013	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2014	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R2015	VRD-RA2BE103J	J 10k	1/8W Carbon	AA
R2326	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2339	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R2340	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA
R2341	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R2342	VRD-RA2EE750J	J 75	1/4W Carbon	AA
R6060	VRS-CY1JF561J	J 560	1/16W Metal Oxide	AA
R6061	VRS-CY1JF561J	J 560	1/16W Metal Oxide	AA
R6062	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6063	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6064	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6065	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6066	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6067	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6068	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA
R6069	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R6070	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R6071	VRS-CY1JF821J	J 820	1/16W Metal Oxide	AA
R6072	VRS-CY1JF821J	J 820	1/16W Metal Oxide	AA
R6073	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R6074	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R6075	VRS-CY1JF393J	J 39k	1/16W Metal Oxide	AA
R6076	VRS-CY1JF393J	J 39k	1/16W Metal Oxide	AA
R6160	VRS-CY1JF561J	J 560	1/16W Metal Oxide	AA
R6161	VRS-CY1JF561J	J 560	1/16W Metal Oxide	AA
R6162	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6163	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6164	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6165	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6166	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6167	VRS-CY1JF823J	J 82k	1/16W Metal Oxide	AA
R6168	VRD-RA2BE153J	J 15k	1/8W Carbon	AA
R6175	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTKB045TEV1 AV PWB UNIT(Continued)				
R6176	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA

BALUN

FB2001	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC
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MISCELLANEOUS PARTS

SC2001	QSOCN1995REZZ	J	Socket, 19Pin	AD
SC2002	QSOCN1995REZZ	J	Socket, 19Pin	AD
SC2003	QSOCN0999REZZ	J	Socket, 9Pin	AD
SC2004	QPLGN0278GEZZ	J	Plug, 2Pin	AA
SC2005	QSOCN0995REZZ	J	Socket, 9Pin	AC
SC2006	QSOCN1279GEZZ	J	Socket, 12Pin	AC
SC2007	QSOCN1279GEZZ	J	Socket, 12Pin	AC
SC2008	QSOCN0779GEZZ	J	Socket, 7Pin	AC
SC2009	QSOCN1279GEZZ	J	Socket, 12Pin	AC

DUNTKB046TEV1
TERMINAL PWB UNIT**INTEGRATED CIRCUITS**

IC2501	VHiLA73024V-1*	J	LA73024V, Selector	AN
IC2502	VHiMM1114XF1E*	J	MM1114XF, R/CHROMA Selector	AH
IC2503	VHiMM1506XN-1	J	MM1506XN, G Selector	AE
IC2504	VHiMM1506XN-1	J	MM1506XN, B Selector	AE
IC2505	VHiTC4W53F/-1	J	TC4W53F, Selector	AE

TRANSISTORS

Q2503	VSUN2213///-1	J	UN2213	AA
Q2504	VS2PD601AR/-1	J	2PD601AR	AB
Q2505	VS2PD601AR/-1	J	2PD601AR	AB
Q2506	VS2PD601AR/-1	J	2PD601AR	AB
Q2507	VS2PD601AR/-1	J	2PD601AR	AB
Q2508	VSUN2213///-1	J	UN2213	AA
Q2901	VS2PB709AR/-1	J	2PB709AR	AB
Q2902	VSUN2113///-1	J	UN2213	AA

DIODES

D2502	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2503	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2505	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2506	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2507	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2508	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2509	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2510	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2511	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2512	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2513	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2514	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2516	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2517	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2518	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2519	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2520	RH-EX0646GEZZ	J	Zener, EX0646GE	AA
D2521	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2522	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2526	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2527	RH-EX0627GEZZ	J	Zener, EX0627GE	AA
D2528	RH-EX0646GEZZ	J	Zener, EX0646GE	AA

CAPACITORS

C2501	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2502	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2503	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2504	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2505	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2506	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2507	VCEA9M1CW106M	J 10	16V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code
C2508	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2509	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2510	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2511	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C2512	VCEA9M1CW107M	J 100	16V Electrolytic	AB
C2513	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C2514	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C2515	VCEA0M0JW477M	J 470	6.3V Electrolytic	AC
C2518	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2519	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2520	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C2521	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C2522	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C2530	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C2531	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB
C2532	VCE9EM1AW106M	J 10	10V Electrolytic	AB
C2533	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2534	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C2535	VCE9EM1AW106M	J 10	10V Electrolytic	AB
C2536	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2538	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2539	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2540	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2541	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2542	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2543	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2544	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2545	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2546	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2547	VCCCY1HH101J	J 100p	50V Ceramic	AA
C2560	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2561	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2562	VCEA9M1CW107M	J 100	16V Electrolytic	AB
C2563	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C2564	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB
C2565	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C2566	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA

RESISTORS

JP2501	VRD-RA2BER0RJ	J 0.0R	1/8W Carbon	AA
JP2502	VRD-RA2BER0RJ	J 0.0R	1/8W Carbon	AA
R2236	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R2238	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R2242	VRD-RA2BE102J	J 1k	1/8W Carbon	AA
R2501	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2502	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2503	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2504	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2505	VRD-RA2BE821J	J 820	1/8W Carbon	AA
R2506	VRD-RA2BE821J	J 820	1/8W Carbon	AA
R2507	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2508	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2509	VRS-CY1JF821J	J 820	1/16W Metal Oxide	AA
R2510	VRS-CY1JF821J	J 820	1/16W Metal Oxide	AA
R2511	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2512	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2513	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2514	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2515	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2522	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2523	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2524	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2525	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R2544	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
R2545	VRS-CY1JF470J	J 47	1/16W Metal Oxide	AA
R2546	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
R2547	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2551	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
R2552	VRS-CY1JF470J	J 47	1/16W Metal Oxide	AA
R2553	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
R2554	VRD-RA2BE750J	J 75	1/8W Carbon	AA
R2556	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R2557	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R2558	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
R2559	VRS-CY1JF822J	J 8.2k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKB046TEV1 TERMINAL PWB UNIT(Continued)					△ D910	RH-DX0220CEZZ	J	DX0220CE	AB
R2560	VRS-CY1JF183J	J	18k 1/16W Metal Oxide	AA	△ D911	RH-DX0220CEZZ	J	DX0220CE	AB
R2561	VRS-CY1JF470J	J	47 1/16W Metal Oxide	AA	△ D912	RH-DX0220CEZZ	J	DX0220CE	AB
R2562	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA	△ D913	RH-DX0220CEZZ	J	DX0220CE	AB
R2563	VRS-CY1JF470J	J	47 1/16W Metal Oxide	AA	D9051	RH-EX0611GEZZ	J	Zener, EX0611GE	AA
R2564	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA	D9052	VHD1SS119//1	J	1SS119	AB
R2565	VRD-RA2BE750J	J	75 1/8W Carbon	AA	D9053	RH-EX0610GEZZ	J	Zener, EX0610GE	AA
R2566	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA	D9054	RH-EX0611GEZZ	J	Zener, EX0611GE	AA
R2901	VRD-RA2EE331J	J	330 1/4W Carbon	AA	D9091	VHD1SS119//1	J	1SS119	AB
R2903	VRS-CY1JF183J	J	18k 1/16W Metal Oxide	AA	D9092	VHD1SS119//1	J	1SS119	AB
R2904	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA	D9093	VHD1SS119//1	J	1SS119	AB
R2907	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA	D9094	VHD1SS119//1	J	1SS119	AB
R2909	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA	D9095	VHD1SS119//1	J	1SS119	AB
SWITCH					D9601	VHD1F4G///1	J	1F4G	AC
S2501	QSW-S0270GEZZ	J	Switch	AF	D9602	VHD1SS244//1	J	1SS244	AB
BALUNES					D9603	RH-DX0436CEZZ	J	DX0436CE	AG
FB2501	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	D9604	VHD15DF1FC/1E	J	15DF1FC	AD
FB2502	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	D9605	VHD15DF1FC/1E	J	15DF1FC	AD
FB2505	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	D9606	VHD1SS244//1	J	1SS244	AB
FB2506	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	D9611	VHD1SS119//1	J	1SS119	AB
FB2507	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	D9612	VHD1SS119//1	J	1SS119	AB
FB2508	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC	D9613	VHD1SS119//1	J	1SS119	AB
FB2509	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	△ IC901	RH-FX0001AJZZ	J	FX0001AJ	AE
FB2510	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	△ IC902	RH-FX0001AJZZ	J	FX0001AJ	AE
FB2511	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	COILS AND TRANSFORMER				
FB2512	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	△ L901	RCILF0275GEZZ	J	Coil, CiLF0275GE	AF
FB2513	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB	L9601	RCILP0171CEZZ	J	Coil, CiLP0171CE	AD
FB2514	RBLN-0076TAZZ	J	Balun, BLN-0076TA	AC	L9602	RCILP0171CEZZ	J	Coil, CiLP0171CE	AD
MISCELLANEOUS PARTS					L9603	RCILP0171CEZZ	J	Coil, CiLP0171CE	AD
SC2501	QSOCZ2185GEZZ	J	Socket, 20Pin	AF	△ T901	RTRNWA005WJZZ	J	Transformer	AM
SC2502	QSOCZ2185GEZZ	J	Socket, 20Pin	AF	CAPACITORS				
SC2504	QSOCN1996REZZ	U	Socket, 19Pin	AB	△ C901	RC-FZ029CUMZZ	J	0.1 250V M.Polypro	AD
SC2505	QSOCN1996REZZ	U	Socket, 19Pin	AB	△ C902	RC-FZ029CUMZZ	J	0.1 250V M.Polypro	AD
DUNTKB047TEV1(DV-NC55S/H) DUNTKB087TEV1(DV-NC60H) POWER PWB UNIT					△ C903	RC-KZ0105GEZZ	J	2200p AC250V Ceramic	AD
INTEGRATED CIRCUITS					△ C904	RC-EZ0437GEZZ	J	68 400V Electrolytic	AK
IC9021	VHiPQ15RW21-1	J	PQ15RW21, 5.2V REG	AK	△ C905	RC-KZ0112CEZZ	J	100p 1kV Ceramic	AB
IC9052	VHiKA7808AP-1	J	KA7808AP, 8VREG	AE	△ C908	VCQYTA1HM152J	J	1500p 50V Mylar	AA
IC9053	VHiPQ30RV11-1	J	PQ30RV11, 3.3V REG	AF	△ C909	VCEAOM1HW336M+J	J	33 50V Electrolytic	AB
IC9054	VHiPQ30RV11-1	J	PQ30RV11, 1.8V REG	AF	△ C910	VCQYTA1HM332J	J	3300p 50V Mylar	AA
IC9601	VHiKiA431//1	J	KiA431	AE	△ C913	RC-EZ0661GEZZ	J	1 400V Electrolytic	AD
TRANSISTORS					C9021	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
△ Q901	VS2SK2848//1	J	2SK2848	AH	C9052	VCEAOM1AW477M+J	J	470 10V Electrolytic	AC
△ Q902	VS2SC2001LK-1	J	2SC2001LK	AA	C9053	VCEA9M1CW476M	J	47 16V Electrolytic	AB
△ Q903	VS2SC3052EF-1	J	2SC3052EF	AC	C9055	VCEA9M1CW476M	J	47 16V Electrolytic	AB
△ Q904	VS2SC3052EF-1	J	2SC3052EF	AC	C9057	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
△ Q910	VS2SC3052EF-1	J	2SC3052EF	AC	C9058	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
Q9053	VS2SB1443TV1E	J	2SB1443TV	AE	C9059	VCEA0A1CW108M	J	1000 16V Electrolytic	AD
Q9054	VS2SC2001LK-1	J	2SC2001LK	AA	C9060	VCEA9M1CW106M	J	10 16V Electrolytic	AB
Q9055	VS2C1740SQR1E	J	2C1740SQR	AC	C9061	VCEA9M1CW106M	J	10 16V Electrolytic	AB
Q9056	VSKRC102S//1	J	KRC102S	AA	C9063	VCEA9M1HW225M	J	2.2 50V Electrolytic	AB
Q9057	VSKRA103S//1	J	KRA103S	AA	C9064	VCEA9M1HW225M	J	2.2 50V Electrolytic	AB
Q9058	VS2SD471-KL1E	J	2SD471-KL	AC	C9072	VCEA0A1CW227M	J	220 16V Electrolytic	AC
Q9603	VS2SA1530ARS1	J	2SA1530AR	AC	C9601	VCEA0M1AW477M+J	J	470 10V Electrolytic	AC
DIODES AND LED'S					C9603	VCEA0M1JW476M+J	J	47 63V Electrolytic	AC
△ D903	VHD1SS119//1	J	1SS119	AB	C9605	VCEA0A1VW477M	J	470 35V Electrolytic	AB
△ D904	VHD10ELS4//1	J	10ELS4	AD	C9606	VCEA0M1VW476M+J	J	47 35V Electrolytic	AB
△ D905	VHD1SS119//1	J	1SS119	AB	C9608	RC-EZ1087CEZZ	J	1500 16V Electrolytic	AF
△ D907	RH-EX0645GEZZ	J	Zener, EX0645GE	AB	C9609	VCEA0M1EW107M+J	J	100 25V Electrolytic	AB
△ D908	RH-EX0613GEZZ	J	Zener, EX0613GE	AA	C9610	RC-EZ1075CEZZ	J	2200 10V Electrolytic	AF
△ D909	RH-DX0220CEZZ	J	DX0220CE	AB	C9611	VCEA0M1AW477M+J	J	470 10V Electrolytic	AC
RESISTORS					C9612	VCEA0M1HW476M+J	J	47 50V Electrolytic	AB
△ R901	VRD-RM2HD105J	J	1M 1/2W Carbon	AA	C9613	VCEA9M1HW105M	J	1 50V Electrolytic	AB
△ R902	RR-HZ0014GEZZ	J	12M 1W Alumina Ceramic	AE	C9614	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
△ R904	RR-WZ0018GEZZ	J	4.7 2W Wire Wound	AD	C9616	VCKYD41CY103N	J	0.01 16V Ceramic	AA
△ R906	VRD-RM2HD105J	J	1M 1/2W Carbon	AA	C9618	VCEA9M1HW105M	J	1 50V Electrolytic	AB
△ R907	VRD-RM2HD333J	J	33k 1/2W Carbon	AA					

Ref. No.	Part No.	★	Description	Code
DUNTKB047TEV1(DV-NC55S/H) DUNTKB087TEV1(DV-NC60H) POWER PWB UNIT(Continued)				
△ R908	VRD-RA2BE563J	J 56k	1/8W Carbon	AA
△ R909	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
△ R910	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA
△ R911	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
△ R912	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA
△ R914	VRD-RA2BE101J	J 100	1/8W Carbon	AB
△ R915	VRD-RM2HD152J	J 1.5k	1/2W Carbon	AA
△ R916	VRN-VV3DBR22J	J 0.22	2W Metal Film	AB
△ R920	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
△ R922	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
△ R930	VRD-RM2HD105J	J 1M	1/2W Carbon	AA
R9021	VRS-CY1JF152F	J 1.5k	1/16W Metal Oxide	AA
R9022	VRS-CY1JF152F	J 1.5k	1/16W Metal Oxide	AA
R9054	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R9055	VRD-RA2EE821J	J 820	1/4W Carbon	AA
R9056	VRD-RA2BE681J	J 680	1/8W Carbon	AA
R9058	VRD-RA2BE271J	J 270	1/8W Carbon	AA
R9066	VRS-CY1JF272F	J 2.7k	1/16W Metal Oxide	AA
R9067	VRS-CY1JF182F	J 1.8k	1/16W Metal Oxide	AA
R9068	VRS-CY1JF333F	J 33k	1/16W Metal Oxide	AA
R9069	VRS-CY1JF102F	J 1k	1/16W Metal Oxide	AA
R9070	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
R9071	VRS-CY1JF222F	J 2.2k	1/16W Metal Oxide	AA
R9073	VRS-CY1JF331J	J 330	1/16W Metal Oxide	AA
R9601	VRS-CY1JF390J	J 39	1/16W Metal Oxide	AA
R9602	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA
R9603	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R9604	VRS-CY1JF100J	J 10	1/16W Metal Oxide	AA
R9605	VRS-CY1JF121J	J 120	1/16W Metal Oxide	AA
R9606	VRS-CY1JF122J	J 1.2k	1/16W Metal Oxide	AA
R9607	VRS-CY1JF470J	J 47	1/16W Metal Oxide	AA
R9608	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA
R9609	VRS-CY1JF271J	J 270	1/16W Metal Oxide	AA
R9610	VRS-CY1JF182J	J 1.8k	1/16W Metal Oxide	AA
R9611	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA
R9612	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R9613	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA
R9614	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R9615	VRD-RA2BE332J	J 3.3k	1/8W Carbon	AA
R9616	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA
R9618	VRG-SC2EB1R0J	J 1	1/4W Fuse Resistor	AB
R9620	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA

BALUNES

△ FB902	RBLN-0043CEZZ	J Balun, BLN-0043CE	AB
FB9001	RBLN-0036CEZZ	J Balun, BLN-0036CE	AB

MISCELLANEOUS PARTS

△ FH901	QFSDH1014CEZZ	J Fuse Holder	AC
△ FH902	QFSDH1013CEZZ	J Fuse Holder	AC
△ F901	QFS-C2025CEZZ	J Fuse, 2A 250V	AD
△ PDA901	PRDAF5021AJFW	J Heat Sink	AE
P901	QPLGN0269GEZZ	J Plug, 3Pin	AB
P9001	QPLGN0978GEZZ	J Plug, 9Pin	AC
P9002	QPLGN1178GEZZ	J Plug, 11Pin	AC
P9003	QPLGN1278GEZZ	J Plug, 12Pin	AC
W9001	PRDAR0103AJFW	J Heat Sink	AE
W9002	PRDAR0104AJFW	J Heat Sink	AD
W9003	PRDAR0104AJFW	J Heat Sink	AD
W9004	PRDAR0103AJFW	J Heat Sink	AE
W9005	PRDAR0104AJFW	J Heat Sink	AD
△ W911	XBPSD30P10KS0	J Screw	AA
W9011	XBPSD30P10KS0	J Screw	AA
W9012	XBPSD30P10KS0	J Screw	AA
W9013	XBPSD30P10KS0	J Screw	AA
W9014	XBPSD30P10KS0	J Screw	AA
W9015	XBPSD30P10KS0	J Screw	AA

Ref. No.	Part No.	★	Description	Code
DUNTKB040TEV1(DV-NC55S/H) DUNTKB084TEV1(DV-NC60H) INTERFACE PWB UNIT				
INTEGRATED CIRCUITS				
IC6001	VHiPCM1737E-1	J	PCM1737E, Audio DAC	AS
IC6004	VHiNJM4565M-1*	J	NJM4565M, Audio Amp	AD
IC6101	VHiTC4W53F/-1	J	TC4W53F	AE
IC8201	RH-iX1757GEZZQ	J	IX1757GE, Interface CPU	AQ
IC8202	VHiPST600H/-1	J	PST600H, Reset IC	AE
TRANSISTORS				
Q6002	VS2SA1530ARS1	J	2SA1530AR	AC
Q6003	VSKRC104S//-1	J	KRC104S	AA
Q6004	VSKRA103S//-1	J	KRA103S	AA
Q6005	VSKRC104S//-1	J	KRC104S	AA
Q6006	VSKRA103S//-1	J	KRA103S	AA
Q6007	VS2SD1306-E-1	J	2SD1306-E	AC
Q6008	VS2SD1306-E-1	J	2SD1306-E	AC
Q6009	VSKRC104S//-1	J	KRC104S	AA
Q6020	VSKRA103S//-1	J	KRA103S	AA
Q6101	VS2SC3052EF-1	J	2SC3052EF	AC
Q6102	VSKRC103S//-1	J	KRC103S	AA
Q8201	VSKRA103S//-1	J	KRA103S	AA
Q8202	VS2SC3052EF-1	J	2SC3052EF	AC
Q8203	VS2SC3203Y/-1	J	2SC3203Y	AB
Q8204	VSKRA103S//-1	J	KRA103S	AA
Q8205	VSKRC103S//-1	J	KRC103S	AA
Q8206	VSKRC103S//-1	J	KRC103S	AA
Q8207	VSKRC103S//-1	J	KRC103S	AA
Q8209	VSKRA102S//-1	J	KRA102S	AA
DIODES				
D6001	VHD1SS119//-1	J	1SS119	AB
D6002	VHD1SS119//-1	J	1SS119	AB
D6003	VHD1SS119//-1	J	1SS119	AB
D6101	RH-EX0609GEZZ	J	Zener, EX0609GE	AA
D8201	VHD1SS119//-1	J	1SS119	AB
D8202	VHD1SS119//-1	J	1SS119	AB
D8203	VHD1SS119//-1	J	1SS119	AB
FILTERS				
FL6101	RFiLN0044GEZZ	J	Filter, FiLN0044GE	AB
FL8201	RFiLC0198GEZZ	J	Filter, FiLC0198GE	AE
COIL				
L6101	VP-MK100K0000	J	Peaking, 10μH	AB

CAPACITORS

C6001	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB
C6002	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C6003	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C6006	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6007	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6008	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6009	VCCCCY1HH470J	J 47p	50V Ceramic	AA
C6010	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C6011	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6012	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB
C6013	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C6014	VCQYTA1HM561J	J 560p	50V Mylar	AB
C6015	VCQYTA1HM561J	J 560p	50V Mylar	AB
C6025	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6026	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C6027	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C6028	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB
C6029	VCEA2A0JW477M	J 470	6.3V Electrolytic	AB
C6030	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6031	VCEA9A1CW106M	J 10	16V Electrolytic	AB
C6032	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C6033	VCEA9M1CW226M	J 22	16V Electrolytic	AB
C6034	VCEA9M1CW226M	J 22	16V Electrolytic	AB
C6035	VCQYTA1HM822J	J 8200p	50V Mylar	AA
C6036	VCQYTA1HM822J	J 8200p	50V Mylar	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKB040TEV1(DV-NC55S/H) DUNTKB084TEV1(DV-NC60H) INTERFACE PWB UNIT(Continued)					R8207	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6049	VCCCCY1HH221J	J 220p	50V Ceramic	AA	R8208	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C6050	VCCCCY1HH221J	J 220p	50V Ceramic	AA	R8209	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C6051	VCCCCY1HH221J	J 220p	50V Ceramic	AA	R8210	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6052	VCCCCY1HH221J	J 220p	50V Ceramic	AA	R8211	VRD-RA2BE473J	J 47k	1/8W Carbon	AA
C6080	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	R8212	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6081	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R8213	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6101	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	R8214	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C6103	VCEA9M1CW106M	J 10	16V Electrolytic	AB	R8215	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
C6104	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	R8216	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
C6105	VCKYCY1CB104K	J 0.1	16V Ceramic	AB	R8217	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C6106	VCEA9M1CW106M	J 10	16V Electrolytic	AB	R8218	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C6109	VCCCCY1HH470J	J 47p	50V Ceramic	AA	R8219	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA
C6110	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB	R8220	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA
C6111	VCCCCY1HH470J	J 47p	50V Ceramic	AA	BALUNES				
C6112	VCEA9M1CB106M	J 10	16V Electrolytic	AB	FB6001	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C6113	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB6002	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8201	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB6004	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8202	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB6005	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8203	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	FB6006	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8204	VCEA9M1HW105M	J 1	50V Electrolytic	AB	FB6101	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8205	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB	FB6102	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8206	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB6103	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8208	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB6104	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8209	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	FB8201	RBLN-0077TAZZ	J Balun, BLN-0077TA		AB
C8214	VCCCD41HH100J	J 10p	50V Ceramic	AB	MISCELLANEOUS PARTS				
C8215	VCCCD41HH100J	J 10p	50V Ceramic	AB	PSLDM9385AJZZ	J Shield			AE
C8216	VCCCD41HH100J	J 10p	50V Ceramic	AB	CN6101	QPLGN0278GEZZ	J Plug, 2Pin		AA
C8217	VCKYD41HF104Z	J 0.1	50V Ceramic	AA	CN6102	QSOCN0995REZZ	J Socket, 9Pin		AC
RESISTORS					CN8201	QPLGN1178GEZZ	J Plug, 11Pin		AC
RJ47	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	CN8202	QSOCN2999REZZ	J Socket, 29Pin		AE
R6010	VRD-RM2HD220J	J 22	1/2W Carbon	AA	CN8203	QSOCN0620FJZZ	J Socket, 23Pin		AE
R6011	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	DUNTKB043TEV1(DV-NC55H/60H) DUNTKB043TEV2(DV-NC55S) VCR MAIN PWB UNIT				
R6012	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	TUNERS				
R6029	VRD-RA2BE222J	J 2.2k	1/8W Carbon	AA	TU1401	VTUATMDG2-602	J VHF/UHF Tuner(NC55S)		BG
R6030	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA	TU1401	VTUATMDB2-602	J UHF Tuner(NC55H/60H)		BF
R6031	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA	INTEGRATED CIRCUITS				
R6036	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	IC201	VHiHA8617F/-1	J HA8617F, Y/C Audio Processor		AX
R6037	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	IC681	VHiTC4S66F/-1	J TC4S66F		AD
R6042	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	IC701	RH-iXA082WJZZQ	U iXA082WJ		AE
R6043	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	IC703	VHiPST600K/-1	J PST600K		AE
R6044	VRS-CY1JF474J	J 470k	1/16W Metal Oxide	AA	IC705	VHiBR2416E2-1	J BR2416E2, E ² PROM		AK
R6045	VRS-CY1JF474J	J 470k	1/16W Metal Oxide	AA	IC1201	VHiMM1508XN-1	J MM1508XN, Y Driver		AE
R6046	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	IC1202	VHiMM1506XN-1	J MM1506XN, C Driver		AE
R6047	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	IC1206	VHiMM1508XN-1	J MM1508XN, COMP. Driver		AE
R6048	VRS-CY1JF331J	J 330	1/16W Metal Oxide	AA	IC1701	VHiMSP3417G-1Q	J MSP3417G, MPX Decoder		AY
R6049	VRS-CY1JF331J	J 330	1/16W Metal Oxide	AA	IC1801	VHiLC74793J1E	J LC74793J, VPS/PDC		AV
R6050	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA	IC6301	VHiLA72634M-1	J LA72634M, Hi-Fi Audio Processor		AR
R6051	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA	IC7002	VHiLB11880+-1	J LB11880+, Loading/Drum M Driver IC		AL
R6052	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA	TRANSISTORS				
R6053	VRD-RA2BE272J	J 2.7k	1/8W Carbon	AA	Q201	VS2PD601AR/-1	J 2PD601AR		AB
R6054	VRD-RA2BE332J	J 3.3k	1/8W Carbon	AA	Q205	VSUN2213///-1	J UN2213		AA
R6055	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	Q301	VS2PD601AR/-1	J 2PD601AR		AB
R6056	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	Q302	VSUN2113///-1	J UN2113		AA
R6057	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA	Q303	VS2PD601AR/-1	J 2PD601AR		AB
R6058	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	Q501	VS2PD601AR/-1	J 2PD601AR		AB
R6101	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	Q502	VS2SK1826++-1	J 2SK1826++		AC
R6102	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA	Q503	VSUN2213///-1	J UN2213		AA
R6103	VRD-RM2HD101J	J 100	1/2W Carbon	AA	Q581	VSUN2111///-1	J UN2111		AA
R6104	VRD-RA2BE151J	J 150	1/8W Carbon	AA	Q582	VSUN2111///-1	J UN2111		AA
R6105	VRD-RA2BE103J	J 10k	1/8W Carbon	AA	Q601	VS2PB709AR/-1	J 2PB709AR		AB
R6106	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA					
R6107	VRS-CY1JF183J	J 18k	1/16W Metal Oxide	AA					
R6108	VRD-RA2BE273J	J 27k	1/8W Carbon	AA					
R6110	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA					
R8201	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA					
R8202	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA					
R8203	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA					
R8204	VRD-RA2BE103J	J 10k	1/8W Carbon	AA					
R8205	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA					
R8206	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA					

Ref. No.	Part No.	★	Description	Code
DUNTKB043TEV1(DV-NC55H/60H) DUNTKB043TEV2(DV-NC55S) VCR MAIN PWB UNIT(Continued)				
Q602	VS2SD1306-E1E	J	2SD1306-E	AD
Q603	VSUN2112///-1	J	UN2112	AA
Q604	VS2PD601AR/-1	J	2PD601AR	AB
Q605	VS2PD601AR/-1	J	2PD601AR	AB
Q651	VS2SC3203Y/-1	J	2SC3203Y	AB
Q652	VS2PD601AR/-1	J	2PD601AR	AB
Q681	VSUN2211///-1	J	UN2211	AA
Q682	VSUN2111///-1	J	UN2211	AA
Q703	VS2PB709AR/-1	J	2PB709AR	AB
Q704	VSUN2212///-1	J	UN2212	AA
Q708	VS2PB709AR/-1	J	2PB709AR	AB
Q711	VS2PD601AR/-1	J	2PD601AR	AB
Q712	VS2PD601AR/-1	J	2PD601AR	AB
Q713	VSUN2211///-1	J	UN2211	AA
Q9903	VS2SD471-KL1E	J	2SD471-KL	AC
Q9905	VSUN2211///-1	J	UN2211	AA
Q9906	VS2PB709AR/-1	J	2PB709AR	AB
Q9907	VS2SA1706ST1E	J	2SA1706ST	AE
Q9908	VSUN2211///-1	J	UN2211	AA
Q9909	VS2PB709AR/-1	J	2PB709AR	AB
Q9910	VSUN2211///-1	J	UN2211	AA
Q9916	VS2SD471-KL1E	J	2SD471-KL	AC

DIODES AND LED'S

D701	RH-PX0270GEZZ	J	PhotoDiode, Cassette LED	AC
D702	VHD1SS119//1	J	1SS119(NC55S)	AB
D704	VHD1SS119//1	J	1SS119	AB
D705	RH-PX0238GEZZ	J	PX0238GE	AF
D708	RH-PX0238GEZZ	J	PX0238GE	AF
D709	VHD1SS119//1	J	1SS119	AB
D710	VHD1SS119//1	J	1SS119	AB
D711	RH-PX0252GEZZ	J	PX0252GE	AF
D712	RH-PX0252GEZZ	J	PX0252GE	AF
D9701	RH-EX0601GEZZ	J	Zener, EX0601GE	AA
D9902	VHD1SS119//1	J	1SS119	AB
D9903	RH-EX0720GEZZ	J	Zener, EX0720GE	AB
D9904	RH-EX0677GEZZ	J	Zener, EX0677GE	AB
D9908	RH-EX0610GEZZ	J	Zener, EX0610GE	AA
D9909	RH-EX0611GEZZ	J	Zener, EX0611GE	AA
D9910	RH-DX0220CEZZ	J	DX0220CE	AB
D9912	VHD1SS119//1	J	1SS119	AB
Q701	RH-PX0233GEZZ	J	PX0233GE	AD
Q702	RH-PX0233GEZZ	J	PX0233GE	AD

PACKAGED CIRCUITS

X501	RCRSB0232GEZZ	J	Crystal, CRSB0232GE	AG
X701	RCRSB0205GEZZ	J	Crystal, CRSB0205GE	AM
X702	RCRSB0138GEN1	J	Crystal, CRSB0138GE	AD
X1701	RCRSB0249GEZZ	J	Crystal, CRSB0249GE	AF

COILS AND TRANSFORMER

L201	VP-XF181J0000	J	Peaking, 180μH	AB
L301	VP-MK101K0000	J	Peaking, 100μH	AB
L302	VP-MK180J0000	J	Peaking, 18μH	AB
L304	VP-XF120J0000	J	Peaking, 12μH	AB
L351	VP-MK101K0000	J	Peaking, 100μH	AB
L502	VP-XF560J0000	J	Peaking, 56μH	AB
L503	VP-XF120J0000	J	Peaking, 12μH	AB
L581	VP-XF101K0000	J	Peaking, 100μH	AB
L651	VP-DF221K0000	J	Peaking, 220μH	AB
L707	VP-XF100J0000	J	Peaking, 10μH	AB
L1401	VP-CF100K0000	J	Peaking, 10μH	AB
L1403	VP-XF100J0000	J	Peaking, 10μH	AB
L1404	VP-XF100J0000	J	Peaking, 10μH	AB
L1407	VP-XF100J0000	J	Peaking, 10μH	AB
L1703	VP-XF100J0000	J	Peaking, 10μH	AB
L1704	VP-XF100J0000	J	Peaking, 10μH	AB
△ T651	RTRNH0098GEZZ	J	OSC. Transformer	AE

Ref. No.	Part No.	★	Description	Code
CAPACITORS				
C201	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
C202	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C203	VCCCCY1HH121J	J	120p 50V Ceramic	AA
C204	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C205	VCCCCY1HH220J	J	22p 50V Ceramic	AA
C206	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C207	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C208	VCEA9M1HW105M	J	1 50V Electrolytic	AB
C209	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C210	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C211	VCEA9M1HW335M	J	3.3 50V Electrolytic	AB
C212	VCEA9M1CW106M	J	10 16V Electrolytic	AB
C213	VCEA9M1HW225M	J	2.2 50V Electrolytic	AB
C214	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C215	VCKYD41CF105Z	J	1 16V Ceramic	AB
C217	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
C218	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C219	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C220	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C221	VCEA9M1CW106M	J	10 16V Electrolytic	AB
C222	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C223	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
C225	VCCCCY1HH220J	J	22p 50V Ceramic	AA
C301	VCEA9M0JW476M	J	47 6.3V Electrolytic	AB
C302	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C303	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C304	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C305	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C306	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C307	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C308	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C309	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C310	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C311	VCKYCY1CB393K	J	0.039 16V Ceramic	AA
C312	VCKYCY1EB123K	J	0.012 25V Ceramic	AA
C313	VCKYCY1HB222K	J	2200p 50V Ceramic	AA
C316	VCCCCY1HH220J	J	22p 50V Ceramic	AA
C317	VCCCCY1HH120J	J	12p 50V Ceramic	AA
C318	VCCCCY1HH220J	J	22p 50V Ceramic	AA
C319	VCCCCY1HH3R0C	J	3p 50V Ceramic	AA
C320	VCCCCY1HH3R0C	J	3p 50V Ceramic	AA
C326	VCCCCY1HH220J	J	22p 50V Ceramic	AA
C327	VCCCCY1HH150J	J	15p 50V Ceramic	AA
C328	VCCCCY1HH150J	J	15p 50V Ceramic	AA
C329	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C330	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C351	VCEA9M0JW476M	J	47 6.3V Electrolytic	AB
C352	VCKYCY1EB123K	J	0.012 25V Ceramic	AA
C353	VCKYCY1HB561K	J	560p 50V Ceramic	AA
C354	VCKYCY1EB123K	J	0.012 25V Ceramic	AA
C355	VCKYD41CF105Z	J	1 16V Ceramic	AB
C356	VCCCCY1HH820J	J	82p 50V Ceramic	AA
C357	VCCCCY1HH560J	J	56p 50V Ceramic	AA
C399	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C501	VCEA9M0JW107M	J	100 6.3V Electrolytic	AB
C502	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C503	VCKYCY1CB104K	J	0.1 16V Ceramic	AB
C504	VCEA9M1HW225M	J	2.2 50V Electrolytic	AB
C505	VCKYCY1CB273K	J	0.027 16V Ceramic	AA
C506	VCKYCY1AB474K	J	0.47 10V Ceramic	AC
C507	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C508	VCEA9M1HW475M	J	4.7 50V Electrolytic	AB
C509	VCKYCY1CB393K	J	0.039 16V Ceramic	AA
C512	VCKYD41CY103N	J	0.01 16V Ceramic	AA
C513	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C514	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA
C515	VCKYCY1HB331K	J	330p 50V Ceramic	AA
C516	VCCCCY1HH120J	J	12p 50V Ceramic	AA
C517	VCEA9M1HW335M	J	3.3 50V Electrolytic	AB
C518	VCKYCY1CB393K	J	0.039 16V Ceramic	AA
C519	VCEA9M1HW105M	J	1 50V Electrolytic	AB
C520	VCKYCY1EF104Z	J	0.1 25V Ceramic	AA
C521	VCCCCY1HH6R0D	J	6p 50V Ceramic	AA
C522	VCKYCY1HF103Z	J	0.01 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKB043TEV1(DV-NC55H/60H) DUNTKB043TEV2(DV-NC55S) VCR MAIN PWB UNIT(Continued)					C776	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C523	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C780	VCKYCY1CB473K	J 0.047	16V Ceramic	AA
C581	VCCCCY1HH270J	J 27p	50V Ceramic	AA	C781	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
C602	VCKYCY1EB123K	J 0.012	25V Ceramic	AA	C794	VCCCCY1HH6R0D	J 6p	50V Ceramic	AA
C603	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB	C795	VCCCCY1HH120J	J 12p	50V Ceramic	AA
C604	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C796	VCCCCY1HH390J	J 39p	50V Ceramic	AA
C605	VCEA9M1HW335M	J 3.3	50V Electrolytic	AB	C797	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C606	VCEA9M1CW106M	J 10	16V Electrolytic	AB	C798	VCKYCY1HB682K	J 6800p	50V Ceramic	AA
C607	VCEA9M1HW475M	J 4.7	50V Electrolytic	AB	C1201	VCEA9A1HW105M	J 1	50V Electrolytic	AB
C608	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB	C1202	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C609	VCEA9M1HW474M	J 0.47	50V Electrolytic	AB	C1203	VCEA0A0JW477M	J 470	6.3V Electrolytic	AC
C610	VCEA9M1HW105M	J 1	50V Electrolytic	AB	C1204	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
C611	VCEA9M1HW105M	J 1	50V Electrolytic	AB	C1205	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB
C612	VCEA9M1HW105M	J 1	50V Electrolytic	AB	C1206	VCKYD41CY103N	J 0.01	16V Ceramic	AA
C622	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C1207	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C623	VCKYCY1HB331K	J 330p	50V Ceramic	AA	C1208	VCKYCY1CF104Z	J 0.1	16V Ceramic	AA
C624	VCKYCY1HB682K	J 6800p	50V Ceramic	AA	C1220	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C625	VCCCCY1HH101J	J 100p	50V Ceramic	AA	C1221	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C626	VCCCCY1HH101J	J 100p	50V Ceramic	AA	C1222	VCEA0A0JW477M	J 470	6.3V Electrolytic	AC
C627	VCCCCY1HH221J	J 220p	50V Ceramic	AA	C1223	VCKYCY1CB104K	J 0.1	16V Ceramic	AB
C628	VCKYCY1HB222K	J 2200p	50V Ceramic	AA	C1224	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C629	VCKYD41CF105Z	J 1	16V Ceramic	AB	C1401	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB
C651	VCQPKA2AA562J	J 5600p	100V Mylar	AB	C1402	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C652	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	C1404	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C653	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	C1405	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB
C654	VCEA9M1CW106M	J 10	16V Electrolytic	AB	C1406	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C655	VCEA9M1CW476M	J 47	16V Electrolytic	AB	C1407	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA
C681	VCKYCY1HB472K	J 4700p	50V Ceramic	AA	C1409	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C682	VCEA9M1CW106M	J 10	16V Electrolytic	AB	C1411	VCKYCY1HB682K	J 6800p	50V Ceramic	AA
C713	RC-EZ0426GEZZ	J 0.1	5.5V Electrolytic (NC55S)	AG	C1701	VCCSD41HL220J	J 22p	50V Ceramic	AA
C714	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C1702	VCCCCY1HH470J	J 47p	50V Ceramic	AA
C715	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C1704	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C722	VCKYCY1HB472K	J 4700p	50V Ceramic	AA	C1705	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C723	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C1706	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C724	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C1707	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C728	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB	C1708	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB
C729	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C1709	VCEA9M1AW226M+J	J 22	10V Electrolytic	AB
C730	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C1710	VCCCCY1HH5R0C	J 5p	50V Ceramic	AA
C731	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C1711	VCCCCY1HH6R0D	J 6p	50V Ceramic	AA
C732	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C1712	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C735	VCCCCY1HH221J	J 220p	50V Ceramic	AA	C1713	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C736	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C1714	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C737	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C1715	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C739	VCKYCY1HB222K	J 2200p	50V Ceramic	AA	C1718	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB
C740	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C1720	VCCCCY1HH470J	J 47p	50V Ceramic	AA
C741	VCKYD41CY103N	J 0.01	16V Ceramic	AA	C1723	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C742	VCEA9M1HW105M	J 1	50V Electrolytic	AB	C1730	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C743	VCKYCY1AF105Z	J 1	10V Ceramic	AC	C1731	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C744	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C1735	VCKYCY1HB122K	J 1200p	50V Ceramic	AA
C745	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB	C1738	VCKYCY1HB122K	J 1200p	50V Ceramic	AA
C746	VCEA9M1HW105M	J 1	50V Electrolytic	AB	C1753	VCKYD41HB331K	J 330p	50V Ceramic	AA
C747	VCCCCY1HH101J	J 100p	50V Ceramic	AA	C1803	VCQYTA1HM563J	J 0.056	50V Mylar	AB
C748	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C1804	VCEA9M1HW475M	J 4.7	50V Electrolytic	AB
C749	VCKYCY1EB223K	J 0.022	25V Ceramic	AA	C1805	VCKYD41CF105Z	J 1	16V Ceramic	AB
C754	VCCCCY1HH220J	J 22p	50V Ceramic	AA	C1806	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C755	VCCCCY1HH150J	J 15p	50V Ceramic	AA	C1807	VCKYD41CY103N	J 0.01	16V Ceramic	AA
C756	VCCCCY1HH150J	J 15p	50V Ceramic	AA	C1811	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB
C757	VCCCCY1HH120J	J 12p	50V Ceramic	AA	C1812	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA
C758	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	C6301	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C760	VCKYCY1AF105Z	J 1	10V Ceramic	AC	C6302	VCEA9M1HW105M	J 1	50V Electrolytic	AB
C761	VCEA0A0JW108M	J 1000	6.3V Electrolytic	AC	C6303	VCEA9M1CW106M	J 10	16V Electrolytic	AB
C762	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB	C6304	VCEA9M1HW475M	J 4.7	50V Electrolytic	AB
C763	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C6305	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
C765	VCKYCY1HF103Z	J 0.01	50V Ceramic	AA	C6306	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB
C768	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	C6307	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB
C769	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	C6308	VCKYCY1HB472K	J 4700p	50V Ceramic	AA
C770	VCKYCY1CB473K	J 0.047	16V Ceramic	AA	C6309	VCKYCY1HB332K	J 3300p	50V Ceramic	AA
C771	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C6310	VCKYCY1CF334Z	J 0.33	16V Ceramic	AA
C773	VCEA9M0JW227M	J 220	6.3V Electrolytic	AB	C6313	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB
C774	VCEA9M0JW107M	J 100	6.3V Electrolytic	AB	C6314	VCKYCY1HB332K	J 3300p	50V Ceramic	AA
C775	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	C6315	VCKYCY1HB472K	J 4700p	50V Ceramic	AA
					C6316	VCEA9M0JW226M	J 22	6.3V Electrolytic	AB
					C6317	VCKYCY1EB103K	J 0.01	25V Ceramic	AA
					C6318	VCEA9M1HW475M	J 4.7	50V Electrolytic	AB
					C6319	VCEA9M1CW106M	J 10	16V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKB043TEV1(DV-NC55H/60H) DUNTKB043TEV2(DV-NC55S) VCR MAIN PWB UNIT(Continued)					R610	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6320	VCEA9M1HW105M	J 1	50V Electrolytic	AB	R611	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA
C6322	VCEA9M1CW106M	J 10	16V Electrolytic	AB	R612	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
C6323	VCEA9M1CW106M	J 10	16V Electrolytic	AB	R613	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
C6324	VCEA9M1CW107M	J 100	16V Electrolytic	AB	R614	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
C6327	VCEA9M1HW105M	J 1	50V Electrolytic	AB	R615	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
C6328	VCEA9M1HW105M	J 1	50V Electrolytic	AB	R616	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA
C7002	VCKYCY1EB223K	J 0.022	25V Ceramic	AA	R617	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA
C7003	VCKYCY1EB223K	J 0.022	25V Ceramic	AA	R619	VRS-CY1JF393J	J 39k	1/16W Metal Oxide	AA
C7004	VCKYCY1EB223K	J 0.022	25V Ceramic	AA	R620	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
C7005	VCEAGA1VW107M	J 100	35V Electrolytic	AC	R624	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
C7006	VCEA9M1CW476M	J 47	16V Electrolytic	AB	R625	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA
C7007	VCKYD41CF105Z	J 1	16V Ceramic	AB	R654	VRD-RA2BE392J	J 3.9k	1/8W Carbon	AA
C7009	VCKYCY1EB103K	J 0.01	25V Ceramic	AA	R655	VRD-RA2BE273J	J 27k	1/8W Carbon	AA
C7011	VCFYSA1HB474J	J 0.47	50V Mylar	AC	R656	VRS-CY1JF470J	J 47k	1/16W Metal Oxide	AA
C7012	VCKYCY1CF324K	J 0.33	16V Ceramic	AA	R657	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA
C7016	VCKYCY1HB102K	J 1000p	50V Ceramic	AA	R658	VRD-RA2EE4R7J	J 4.7	1/4W Carbon	AA
C7019	VCKYD41HF104Z	J 0.1	50V Ceramic	AA	R659	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
C7020	VCEA9M0JW476M	J 47	6.3V Electrolytic	AB	R681	VRS-CY1JF183J	J 18k	1/16W Metal Oxide	AA
C7023	VCKYCY1EF104Z	J 0.1	25V Ceramic	AA	R682	VRS-CY1JF182J	J 1.8k	1/16W Metal Oxide	AA
C7091	VCKYCY1HB392K	J 3900p	50V Ceramic	AA	R683	VRS-CY1JF122J	J 1.2k	1/16W Metal Oxide	AA
C7092	VCKYCY1HB392K	J 3900p	50V Ceramic	AA	R707	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
C8008	VCCCY1HH101J	J 100p	50V Ceramic	AA	R708	VRS-CY1JF123J	J 12k	1/16W Metal Oxide	AA
C8009	VCCCY1HH101J	J 100p	50V Ceramic	AA	R709	VRD-RA2EE680J	J 68	1/4W Carbon	AA
C9701	VCFYSA1HB474J	J 0.47	50V Mylar	AC				(NC55S)	
C9901	VCEA9M1CW476M	J 47	16V Electrolytic	AB	R710	VRD-RA2BE151J	J 150	1/8W Carbon	AA
C9903	VCEA9M1HW105M	J 1	50V Electrolytic	AB	R712	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
C9908	VCEA9M1CW107M	J 100	16V Electrolytic	AB	R713	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA
RESISTORS					R719	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
RJ1205	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R722	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
RJ5002	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R723	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
RJ7007	VRS-CY1JF000J	J 0	1/16W Metal Oxide	AA	R724	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R201	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA	R725	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R202	VRS-CY1JF182J	J 1.8k	1/16W Metal Oxide	AA	R726	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA
R203	VRS-CY1JF822J	J 8.2k	1/16W Metal Oxide	AA	R727	VRD-RA2BE332J	J 3.3k	1/8W Carbon	AA
R204	VRD-RA2BE562J	J 5.6k	1/8W Carbon	AA	R728	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA
R207	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R730	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R208	VRD-RA2BE471J	J 470	1/8W Carbon	AA	R731	VRS-CY1JF182J	J 1.8k	1/16W Metal Oxide	AA
R209	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R732	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R210	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R733	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA
R247	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA	R734	VRS-CY1JF562J	J 5.6k	1/16W Metal Oxide	AA
R248	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA	R735	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA
R301	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA	R736	VRS-CY1JF101J	J 100	1/16W Metal Oxide	AA
R303	VRS-CY1JF392J	J 3.9k	1/16W Metal Oxide	AA	R738	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA
R305	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R741	VRS-CY1JF564J	J 560k	1/16W Metal Oxide	AA
R306	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA	R742	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA
R312	VRS-CY1JF681J	J 680	1/16W Metal Oxide	AA	R743	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
R313	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA	R745	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R314	VRS-CY1JF182J	J 1.8k	1/16W Metal Oxide	AA	R746	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R315	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA	R748	VRD-RA2BE271J	J 270	1/8W Carbon	AA
R351	VRS-CY1JF471J	J 470	1/16W Metal Oxide	AA	R749	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
R352	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA	R750	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R353	VRS-CY1JF224J	J 220k	1/16W Metal Oxide	AA	R751	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R501	VRS-CY1JF102J	J 1k	1/16W Metal Oxide	AA	R752	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R502	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA	R753	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA
R504	VRS-CY1JF221J	J 220	1/16W Metal Oxide	AA	R754	VRS-CY1JF152J	J 1.5k	1/16W Metal Oxide	AA
R505	VRS-CY1JF224J	J 220k	1/16W Metal Oxide	AA	R755	VRD-RA2BE151J	J 150	1/8W Carbon	AA
R506	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA	R756	VRS-CY1JF822J	J 8.2k	1/16W Metal Oxide	AA
R507	VRS-CY1JF272J	J 2.7k	1/16W Metal Oxide	AA	R759	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R508	VRS-CY1JF472J	J 4.7k	1/16W Metal Oxide	AA	R760	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R509	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA	R761	VRD-RA2BE271J	J 270	1/8W Carbon	AA
R510	VRS-CY1JF154J	J 150k	1/16W Metal Oxide	AA	R763	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R601	VRS-CY1JF183J	J 18k	1/16W Metal Oxide	AA	R764	VRS-CY1JF223J	J 22k	1/16W Metal Oxide	AA
R602	VRS-CY1JF274J	J 270k	1/16W Metal Oxide	AA	R765	VRS-CY1JF222J	J 2.2k	1/16W Metal Oxide	AA
R603	VRS-CY1JF181J	J 180	1/16W Metal Oxide	AA	R766	VRS-CY1JF103J	J 10k	1/16W Metal Oxide	AA
R604	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA	R767	VRS-CY1JF151J	J 150	1/16W Metal Oxide	AA
R605	VRS-CY1JF153J	J 15k	1/16W Metal Oxide	AA	R768	VRS-CY1JF104J	J 100k	1/16W Metal Oxide	AA
R606	VRS-CY1JF333J	J 33k	1/16W Metal Oxide	AA	R769	VRS-CY1JF563J	J 56k	1/16W Metal Oxide	AA
R607	VRS-CY1JF682J	J 6.8k	1/16W Metal Oxide	AA	R770	VRS-CY1JF332J	J 3.3k	1/16W Metal Oxide	AA
R608	VRS-CY1JF122J	J 1.2k	1/16W Metal Oxide	AA	R771	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
R609	VRS-CY1JF224J	J 220k	1/16W Metal Oxide	AA	R772	VRS-CY1JF273J	J 27k	1/16W Metal Oxide	AA
					R773	VRS-CY1JF391J	J 390	1/16W Metal Oxide	AA
					R774	VRS-CY1JF473J	J 47k	1/16W Metal Oxide	AA
					R775	VRS-CY1JF391J	J 390	1/16W Metal Oxide	AA
					R776	VRS-CY1JF151J	J 150	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKB043TEV1(DV-NC55H/60H)									
DUNTKB043TEV2(DV-NC55S)									
VCR MAIN PWB UNIT(Continued)									
R777	VRS-CY1JF104J	J	100k 1/16W	Metal Oxide AA	R9909	VRD-RM2HD182J	J	1.8k 1/2W	Carbon AA
R778	VRS-CY1JF221J	J	220 1/16W	Metal Oxide AA	R9910	VRS-CY1JF221J	J	220 1/16W	Metal Oxide AA
R779	VRS-CY1JF221J	J	220 1/16W	Metal Oxide AA	R9911	VRD-RM2HD562J	J	5.6k 1/2W	Carbon AA
R787	VRD-RA2BE473J	J	47k 1/8W	Carbon AA	R9915	VRD-RA2BE103J	J	10k 1/8W	Carbon AA
R788	VRS-CY1JF154J	J	150k 1/16W	Metal Oxide AA	R9916	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA
R789	VRS-CY1JF155J	J	1.5M 1/16W	Metal Oxide AA	R9922	VRD-RA2BE331J	J	330 1/8W	Carbon AA
R790	VRD-RA2BE102J	J	1k 1/8W	Carbon AA	SWITCH				
R791	VRD-RA2BE102J	J	1k 1/8W	Carbon AA	SW701	QSW-F0042AJZZ	J	Switch, REC TIP	AG
R798	VRS-CY1JF271J	J	270 1/16W	Metal Oxide AA	BALUNES				
R799	VRS-CY1JF102J	J	1k 1/16W	Metal Oxide AA	FB202	RBLN-0043CEZZ	J	Balun, BLN-0043CE	AB
R801	VRS-CY1JF562J	J	5.6k 1/16W	Metal Oxide AA	FB203	RBLN-0051TAZZ	J	Balun, BLN-0051TA	AC
R816	VRS-CY1JF183J	J	18k 1/16W	Metal Oxide AA	FB1202	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB
R817	VRS-CY1JF183J	J	18k 1/16W	Metal Oxide AA	FB1203	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB
R1203	VRS-CY1JF750J	J	75 1/16W	Metal Oxide AA	FB1401	RBLN-0043CEZZ	J	Balun, BLN-0043CE	AB
R1204	VRS-CY1JF750J	J	75 1/16W	Metal Oxide AA	FB6101	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB
R1208	VRS-CY1JF750J	J	75 1/16W	Metal Oxide AA	FB6102	RBLN-0077TAZZ	J	Balun, BLN-0077TA	AB
R1210	VRS-CY1JF821J	J	820 1/16W	Metal Oxide AA	MISCELLANEOUS PARTS				
R1211	VRS-CY1JF821J	J	820 1/16W	Metal Oxide AA	J1201	QSOD0445AJZZ	J	Socket	AF
R1401	VRD-RA2BE154J	J	150k 1/8W	Carbon AA	J1202	QJAKG0093CEZZ	J	Jack, Rear AV	AH
R1404	VRS-CY1JF562J	J	5.6k 1/16W	Metal Oxide AA	J1204	QJAKG0065AJZZ	J	Jack, Rear AV	AH
R1405	VRS-CY1JF272J	J	2.7k 1/16W	Metal Oxide AA	PDA301	PSLDM4540AJFW	J	Shield	AE
R1703	VRD-RA2BE473J	J	47k 1/8W	Carbon AA	P201	QPLGN0447REZZ	J	Plug, 4Pin	AA
R1710	VRD-RA2BE101J	J	100 1/8W	Carbon AB	P1201	QPLGN0278GEZZ	J	Plug, 2Pin	AA
R1711	VRD-RA2BE101J	J	100 1/8W	Carbon AB	P1202	QPLGZ1246GEZZ	J	Plug, 12Pin	AC
R1714	VRS-CY1JF102J	J	1k 1/16W	Metal Oxide AA	P1203	QPLGZ1246GEZZ	J	Plug, 12Pin	AC
R1720	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	P1204	QPLGZ1246GEZZ	J	Plug, 12Pin	AC
R1723	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	P1205	QPLGZ0746GEZZ	J	Plug, 7Pin	AB
R1801	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	P7001	QPLGZ0883GEZZ	J	Plug, 8Pin	AD
R1807	VRS-CY1JF272J	J	2.7k 1/16W	Metal Oxide AA	P9601	QPLGN1278GEZZ	J	Plug, 12Pin	AC
R1808	VRS-CY1JF562J	J	5.6k 1/16W	Metal Oxide AA	SC301	QSOCN0911REN1	J	Socket, 9Pin	AD
R1810	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	SC601	QSOCN0604REN1	J	Socket, 6pin	AB
R1861	VRS-CY1JF473J	J	47k 1/16W	Metal Oxide AA	SC602	QSOCZ0293GEZZ	J	Socket, 2Pin	AC
R6305	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	SC1801	QSOCN1595REZZ	J	Socket, 17Pin	AD
R6307	VRS-CY1JF331J	J	330 1/16W	Metal Oxide AA	SC1802	QSOCN1195REZZ	J	Socket, 11Pin	AC
R6308	VRS-CY1JF331J	J	330 1/16W	Metal Oxide AA	SC7001	QSOCZ0292GEZZ	J	Socket, 2Pin	AC
R6309	VRS-CY1JF472J	J	4.7k 1/16W	Metal Oxide AA	SC7002	QSOCN0704REN1	J	Socket, 7Pin	AB
R6310	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA	W851	LHLDZ1962AJ00	J	Holder	AD
R6317	VRD-RA2BE153J	J	15k 1/8W	Carbon AA	W852	LHLDZ1962AJ00	J	Holder	AD
R6318	VRS-CY1JF152J	J	1.5k 1/16W	Metal Oxide AA					
R6319	VRS-CY1JF000J	J	0 1/16W	Metal Oxide AA					
R6320	VRS-CY1JF102J	J	1k 1/16W	Metal Oxide AA					
R6321	VRS-CY1JF272J	J	2.7k 1/16W	Metal Oxide AA					
R6322	VRS-CY1JF102J	J	1k 1/16W	Metal Oxide AA					
R6323	VRS-CY1JF272J	J	2.7k 1/16W	Metal Oxide AA					
R6324	VRD-RA2BE153J	J	15k 1/8W	Carbon AA					
R6325	VRS-CY1JF152J	J	1.5k 1/16W	Metal Oxide AA					
R6327	VRS-CY1JF333J	J	33k 1/16W	Metal Oxide AA					
R6328	VRS-CY1JF333J	J	33k 1/16W	Metal Oxide AA					
R6329	VRD-RA2BE221J	J	220 1/8W	Carbon AA					
R7001	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA					
R7002	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA					
R7003	VRD-RA2EE1R0J	J	1 1/4W	Carbon AA					
R7004	VRS-CY1JF392J	J	3.9k 1/16W	Metal Oxide AA					
R7005	VRS-CY1JF104J	J	100k 1/16W	Metal Oxide AA					
R7006	VRS-CY1JF564J	J	560k 1/16W	Metal Oxide AA					
R7011	VRG-SC2EB1R0J	J	1 1/4W	Fuse Resistor AB					
R7018	VRD-RA2EE1R0J	J	1 1/4W	Carbon AA					
R7047	VRS-CY1JF105J	J	1M 1/16W	Metal Oxide AA					
R8009	VRS-CY1JF101J	J	100 1/16W	Metal Oxide AA					
R8010	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8011	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8012	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8013	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8014	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8015	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R8016	VRD-RA2BE101J	J	100 1/8W	Carbon AB					
R9703	VRD-RA2BE223J	J	22k 1/8W	Carbon AA					
R9807	VRS-CY1JF100J	J	10 1/16W	Metal Oxide AA					
R9901	VRD-RA2BE820J	J	82 1/8W	Carbon AA					
R9907	VRD-RA2BE103J	J	10k 1/8W	Carbon AA					
R9908	VRS-CY1JF103J	J	10k 1/16W	Metal Oxide AA					

Ref. No.	Part No.	★	Description	Code
SUPPLIED ACCESSORIES				
	QCNW-8077UMZZ	U	21Pin Cable	AU
	QCNW-7870UMZZ	U	RF Cable	AH
	RRMCGA005WJSA	U	Remote Control Unit (NC55H/60H)	AV
	RRMCGA012WJSA	U	Remote Control Unit (NC55S)	AV
	TiNS-4058UMZZ	U	Operation Manual (NC55S)	AG
	TiNS-4056UMZZ	U	Operation Manual (NC55H)	AG
	TiNS-4054UMZZ	U	Operation Manual (NC60H)	AG
	TiNS-4102UMZZ	U	Quick Start Guide (NC55H)	AB
	TiNS-4059UMZZ	U	Quick Start Guide (NC55S)	AG
	TiNS-4055UMZZ	U	Quick Start Guide (NC60H)	AG

PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKC4950UMZZ	U	Packing Case(NC55S/H)	—
SPAKC4890UMZZ	U	Packing Case(NC60H)	—
SPAKP0002UMZZ	U	Wrapping Paper	—
SPAKX1144UMZZ	U	Packing Add.	—
SPAKX1146UMZZ	U	Packing Add.	—

MECHANISM PARTS (DVD PART)

401	CMECD0211HJV1	J	Mecha Chassis Ass'y	BU
401-1	LX-BZ3189GEZZ	J	Guide Axis Pressing Biss	AB
401-2	NGERH1330AJZZ	J	Relay Gear1	AC
401-3	NGERH1341AJ00	J	Relay Gear2	AC
401-4	LX-WZ1030GE00	J	Relay Gear Washer	AA
401-5	LX-BZ3163GEFN	J	Motor Screw	AC
401-6	QSW-M0066AJZZ	J	In SW	AD
401-7	DUNTK6062TEV1	—	Sled Motor PWB Unit	—
401-8	RMOTV2019AJZZ	J	Sled Motor	AM
401-9	NGERH1333AJZZ	J	Sled Motor Gear	AB
401-10	NGERR1021AJZZ	J	Double Action Rack	AC
401-11	MSPRC0244AJZZ	J	Rack Spring	AB
401-12	NGERR1024AJZZ	J	Rack	AC
401-13	LX-HZ0083TAFF	J	Rack Fixing Screw	AA
409	PCUSG0126AJZZ	J	Insulator	AD
410	LX-HZ3117AJZZ	J	Traverse Fixing Screw	AC
413	QCNW-8552AJZZ	J	Sled Wire	AF
418	QCNW-8553AJZZ	J	Pickup Relay FFC	AF
419	MSLiP0014AJZZ	J	Slide Rack	AD
420	LHLDZ2144AJZZ	J	Traverse Holder	AD
421	QCNW-8375AJZZ	J	Loading Wire	AD
422	LHLDW1033CE00	J	Nylon Band	AA
423	RMOTM1097AJZZ	J	Loading Motor	AM
424	NPLYM0001AJZZ	J	L Motor Pulley	AB
425	QSW-B0011AJZZ	J	Loading Switch	AE
426	NBLTK0068AJZZ	J	Loading Belt	AD
427	NGERH1332AJZZ	J	Pulley Gear	AC
428	NGERP1016AJZZ	J	Tray Pinion	AC
429	LCHSM0314AJZZ	J	Base Chassis	AL
431	LCRA-0002GEZZ	J	Disc Clamper	AD
432	LX-WZ0102GEFD	J	York Washer	AB
433	PMAGS1001GEZZ	J	Magnet	AF
434	GCOVA2164AJZZ	J	Tray	AH
435	LX-BZ3434AJFD	J	L Motor Fixing Screw	AB

Ref. No.	Part No.	★	Description	Code
MECHANISM PARTS (VCR PART)				
501	LBNDK1011AJZZ	J	Tension Band Ass'y	AH
502	LBOSZ1007AJZZ	J	Tension Arm boss	AD
504	LBOSZ1006AJZZ	J	Cassette Stay L	AD
505	LCHSM0184AJZZ	J	Main Chassis Ass'y	AQ
506	LHLDZ2016AJZZ	J	Loading Motor Block	AG
507	LPOLM0070GEZZ	J	Supply Pole Base Ass'y	AK
508	LPOLM0064GEZZ	J	Take-up Pole Base Ass'y	AM
509	MLEVF0518AJZZ	J	Take-up Loading Arm Ass'y	AF
510	MLEVF0519AJZZ	J	Supply Loading Arm Ass'y	AF
511	MLEVF0499AJZZ	J	Pinch Drive Lever Ass'y	AG
512	MLEVF0500GEZZ	J	Pinch Roller Lever Ass'y	AW
515	MLEVF0523AJZZ	J	Tension Arm Ass'y	AH
516	LANGF9620AJFW	J	A/C Head Base	AG
517	MLEVP0271AJZZ	J	Shifter Drive Lever	AE
518	MLEVP0272AJZZ	J	Pinch Double Action Lever	AD
519	MLEVP0301AJZZ	J	Reverse Guide Lever Ass'y	AL
520	MLEVP0275AJZZ	J	Reverse Guide Drive Lever	AD
521	MLEVP0292AJZZ	J	Slow Brake Lever	AE
522	MLEVP0336AJZZ	J	Open Lever	AD
523	MLEVP0293AJZZ	J	Clutch Lever	AE
524	MLEVP0324AJZZ	J	Supply Main Brake Ass'y	AF
525	MLEVP0325AJZZ	J	Take-up Main Brake Ass'y	AF
526	CLEVP0287AJZZ	J	Auto Head Cleaner	AG
527	MSLiP0010AJZZ	J	Shifter	AH
529	MSPRD0175AJFJ	J	Reverse Guide Spring	AE
530	MSPRT0402AJFJ	J	Loading Double Action Spring	AE
531	MSPRT0403AJFJ	J	Pinch Double Action Spring	AD
532	MSPRC0213AJFJ	J	Earth Spring	AC
533	MSPRT0416AJFJ	J	Tension Spring	AD
534	NBLTK0067AJ00	J	Loading Belt	AE
535-1	NDAiV1091AJ00	J	Reel Disk1	AE
535-2	NDAiV1093AJ00	J	Reel Disk2	AC
536	NGERH1293AJZZ	J	Loading Connect Gear	AD
537	NGERH1295AJ00	J	Master Cam	AE
538	NGERH1294AJZZ	J	Casecon Drive Gear	AD
539	NGERH1270AJZZ	J	Take-up Loading Gear	AF
540	NGERH1271AJZZ	J	Supply Loading Gear	AD
541	NGERH1272AJZZ	J	Pinch Drive Cam	AE
543	NGERH1299AJZZ	J	Reel Relay Gear	AE
544	NGERW1070AJZZ	J	Worm Gear	AD
545	NGERW1066AJZZ	J	Worm Wheel Gear	AD
546	NiDR-0018AJZZ	J	Idler Wheel Ass'y	AK
547	NPLYV0162AJZZ	J	Motor Pulley	AD
548	NPLYV0163AJZZ	J	Limiter Pulley Ass'y	AM
549	NROLP0131GEZZ	J	Guide Roller	AL
550	NSFTP0032AJZZ	J	Tension Pole Adjuster	AB
551	MSPRC0217AJFJ	J	Guide Roller Spring	AC
552	PREFL1011AJZZ	J	Light Guide	AE
553	QCNW-8345AJZZ	J	FFC for Drum Motor	AH
555	QCNW-8021AJZZ	J	FFC for A/C Head	AD
556	QPWBF5243AJZZ	J	A/C Head PWB	AE
557	QSOCN0696REZZ	J	Socket, 6 pin	AB
558	RHEDT0036AJZZ	J	Full Erase Head	AM
559	RHEDU0089GEZZ	J	A/C Head Ass'y	AP
560	RMOTM1078GEZZ	J	Loading Motor	AP
561	RMOTN2067GEZZ	J	Capstan D.D. Motor	AY
562	RMOTP1151GEZZ	J	Drum Drive Motor	AT
563	DDRMW0030TEXD	J	Upper and Lower Drum Ass'y	BH
565	QBRSK0041GEZZ	J	Drum Earth Brush	AD
566	XBPSD26P04500	J	Drum Drive Motor Mounting Screw (SW2.6P+5S)	AB
567	PGiDC0056GEFW	J	Drum Base	AL
568	QPWBF5468AJZZ	J	PWB(LDG Motor)	AE
569	QPLGZ0292GEZZ	J	Socket(LDG Motor)	AE
570	MSPRC0228AJFJ	J	Azimuth Spring	AB
571	MSPRC0224AJFJ	J	Height Adjusting Spring	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
SCREW, NUTS AND WASHERS					CABINET PARTS				
201	XBPSD26P08000	J	Screw 2.6P+8S A/C Head	AA	1	CCABA3167TEV1	U	Top Cabinet Ass'y	AR
202-1	XHPDSD26P06WS0	J	C2.6P+6S(A/C)	AA	3	CPNLC2990TEV1	U	KS Panel(NC55H)	AX
202-2	LX-HZ3082GEZZ	J	WSW 2.6+6	AD	3	CPNLC2990TEV2	U	KS Panel(NC55S)	AX
203	XJPSD26P06000	J	Screw, C2.6P+6S	AA	3	CPNLC2980TEV1	U	KS Panel(NC60H)	AX
207	XHPDSD30P08WS0	J	Screw, C3SP+8S (For Drum Base)	AA	24	LX-HZ3096GEZZ	J	Screw	AB
208	XRESJ30-06000	J	E-Ring, E-3	AA	25	XEBSD30P12000	J	Screw	AA
209	XWHJZ31-05052	J	Washer, W3.1 P-5.2-0.5	AC	28	GCABB1251AJZZ	J	Panel Frame	AQ
210	XWHJZ31-03052	J	Washer, W3.1 P-5.2-0.3	AC	29	GCOVA2208AJZZ	U	Rear Cover	AG
211	XWHJZ31-04052	J	Washer, W3.1 P-5.2-0.4	AC	30	GBDYU3141AJFW	J	Plate (lower)	AQ
212	XWHJZ31-06052	J	Washer, W3.1 P-5.2-0.6	AC	32	QEARP0460AJFW	J	Ground-Part	AC
213	XWHJZ31-07052	J	Washer, W3.1 P-5.2-0.7	AC	35	LANGF9653AJFW	J	Angle(DVD)	AM
214	PSPAP0009AJZZ	J	Reverse Guide Adjusting Nut	AB	36	LANGF9654AJFW	J	DVD REINF. Angle	AC
216	LX-WZ1041GE00	J	CW 2.6-6-0.5 CAM	AA	39	PGUMS0026AJZZ	J	Foot Rubber	AB
218	XBPSD30P06000	J	Drum Base Mounting Screw SW3P+6S	AA	40	XEPSD30P14XS0	J	Screw	AB
219	LX-WZ1098GE00	J	CW 2.6-4.7-0.5 RED	AB	41	LX-HZ3087GEFN	J	Screw	AB
220	LX-BZ3096GEFD	J	Tilt Adjusting Screw	AA	42	LX-HZ3100GEFF	J	Screw	AA
221	XBPSD26P06000	J	Azimuth Adjusting Screw 2.6+6S	AA	44	LHLDL1057CEZZ	J	Interface PWB Holder	AB
222	XBPSD26P14000	J	Screw(A/C Head)	AA	45	LX-HZ3099GEFD	J	Screw	AB
223	XWHJZ31-08052	J	Washer, W3.1 P-5.2-0.8	AC	46	XHPDSD30P06WS0	J	Screw	AA
CASSETTE HOUSING CONTROL PARTS					48	LHLDW1072GEZZ	J	Wire Holder	AA
300	CHLDX3081TEV2	J	Cassette Housing Control Ass'y	AX	49	CDECQ2350TEV2	J	Tray Ass'y(NC55S/H)	AH
301	LANGF9592AJFW	J	Upper Plate	AL	49	CDECQ2431TEV1	J	Tray Ass'y(NC60H)	AK
302	LHLDX1028AJ00	J	Frame (L)	AH	51	PSPAZ0470AJZZ	J	Spacer	AC
303	LHLDX1032AJ00	J	Frame (R)	AH	52	XEBSF30P12000	J	Screw	AA
304	LHLDX1030AJZZ	J	Holder (L)	AE	53	PSPAZ0632AJZZ	J	Spacer	AB
305	LHLDX1031AJZZ	J	Holder (R)	AE	54	PSHEP0043AJZZ	J	Cover	AB
306	MLEVF0469AJFW	J	Proof Lever (R)	AE	55	LHLDW1151AJZZ	J	Holder	AC
307	MLEVP0281AJ00	J	Door Open Lever	AD	56	PSLDM4593AJFW	J	DVD Shield(lower)	AE
308	MSLIF0077AJFW	J	Slider	AE	57	LHLDW1006GEZZ	J	Holder	AA
309	MSPRD0151AJFJ	J	Proof Lever (R) Spring	AB	58	LHLDP1198AJZZ	J	LED Holder	AB
310	MSPRD0166AJFJ	J	Drive Gear (R) Spring	AE	59	LHLDP1200AJZZ	J	DVD LED Holder (NC55S/H)	AD
311	MSPRP0175AJFJ	J	Cassette Spring	AE	63	PSLDM4551UMFW	U	H/A Shield(Top)	AB
312	MSPRT0381AJFJ	J	Double Action Spring	AC	64	PSPAZ0633AJZZ	J	Spacer	AC
313	NGERH1278AJZZ	J	Drive Gear L	AE	65	DUNTKB045TEV1	U	AV PWB Unit	—
314	NGERH1309AJZZ	J	Drive Gear R	AE	66	DUNTKB040TEV1	U	Interface PWB Unit (NC55S/H)	—
315	NGERR1008AJ00	J	Double Action Rack Gear	AE	66	DUNTKB084TEV1	U	Interface PWB Unit (NC60H)	—
316	NGERR3005AJFW	J	Drive Angle Gear	AG	67	DUNTKB047TEV1	U	Power PWB Unit (NC55S/H)	—
317	NSFTD0041AJFD	J	Main Shaft	AH	67	DUNTKB087TEV1	U	Power PWB Unit (NC60H)	—
					68	DUNTKB6054TE6E	U	DVD Main PWB Unit	—
					69	DUNTKB042TEV1	U	VCR Display PWB Unit (NC55S/H)	—
					69	DUNTKB086TEV1	U	VCR Display PWB Unit (NC60H)	—
					70	DUNTKB041TEV1	U	DVD Display PWB Unit (NC55S/H)	—
					70	DUNTKB085TEV1	U	DVD Display PWB Unit (NC60H)	—
					71	DUNTKB043TEV1	U	VCR Main PWB Unit (NC55H/60H)	—
					71	DUNTKB043TEV2	U	VCR Main PWB Unit (NC55S)	—
					72	QCNW-8021AJZZ	J	Connecting Cord	AD
					73	QCNW-8345AJZZ	J	Connecting Cord	AH
					74	QCNW-8553AJZZ	J	Connecting Cord	AF
					75	QACCB5014UMZZ	U	AC Cord(NC55H/60H)	AQ
					75	QACCV2009AJZZ	J	AC Cord(NC55S)	AM
					76	QCNW-8600AJZZ	J	Connecting Cord	AD
					77	QCNW-8601AJZZ	J	Connecting Cord	AE
					78	QCNW-8602AJZZ	J	Connecting Cord	AC
					79	QCNW-8603AJZZ	J	Connecting Cord	AC
					80	QCNW-8604AJZZ	J	Connecting Cord	AC
					81	QCNW-8605AJZZ	J	Connecting Cord	AE
					82	QCNW-A224WJZZ	J	Connecting Cord	AE
					83	QCNW-8607AJZZ	J	Connecting Cord	AG
					84	QCNW-A225WJZZ	J	Connecting Cord	AD
					85	QCNW-8609AJZZ	J	Connecting Cord	AF
					86	QCNW-A227WJZZ	J	Connecting Cord	AC

DV-NC55S/H
DV-NC60H

Ref. No.	Part No.	★	Description	Code
87	XHPSF30P10WS0	J	Screw	AA
88	PSPAZ0641AJZZ	J	Spacer	AB
90	PSLDM9385AJZZ	J	Spacer	AE
91	PSLDM4591AJFW	J	Shield Plate(NC55S/H)	AF
93	TLABS0417AJZZ	J	Laser Caution Label	AC
94	GCOVA3065AJZZ	U	Rear Panel	AG
95	QCNW-A226WJZZ	U	Connecting Cord	AB
96	QCNW-A256WJZZ	J	Connecting Cord	AH
97	DUNTKB046TEV1	U	Terminal PWB Unit	—
98	TLABZ1748UMZZ	U	Rear Cover Label	AF
99	QCNW-8022AJZZ	J	FFC For Drum Motor	AD

FRONT PANEL PARTS

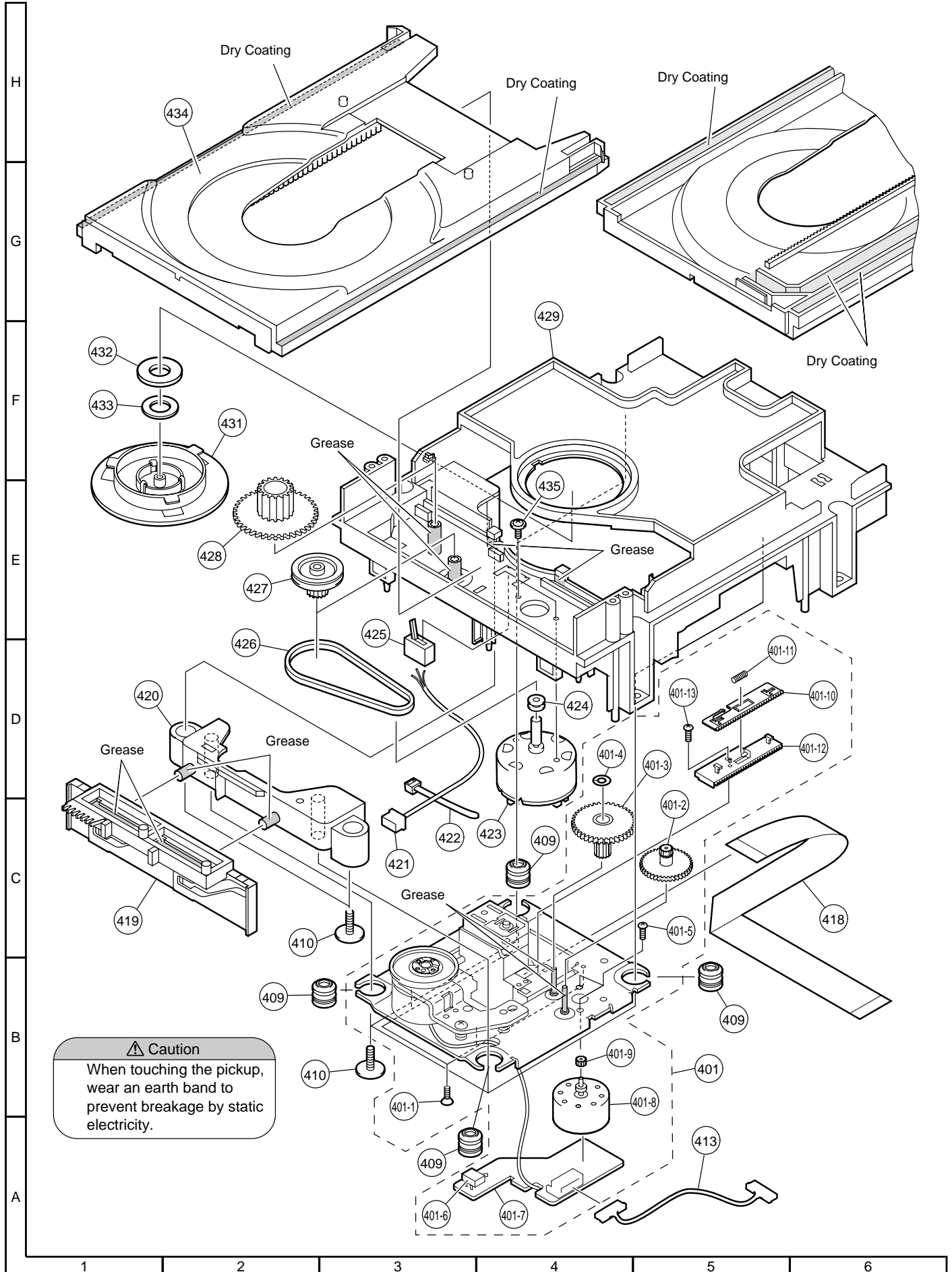
DV-NC55S/H

601	CPNLC2990TEV1	U	Front Panel Ass'y(NC55H)	AX
601	CPNLC2990TEV2	U	Front Panel Ass'y(NC55S)	AX
601-1	HDECQ2351AJSB	J	Decoration Plate(Left)	AF
601-2	HDECQ2401AJSA	J	Decoration Plate(Right)	AL
601-3	HiNDP2238AJSB	U	Indicator(Left)	AD
601-4	HiNDP2172AJSB	J	Indicator(Right)	AF
601-5	JBTN-3132AJSA	J	Button(Left)	AG
601-6	JBTN-3121AJSB	J	Button(Right)	AG
601-7	CDECQ2316TEV7	U	C Cassette Flap(NC55H)	AK
601-7	CDECQ2316TEV5	U	C Cassette Flap(NC55S)	AK
601-9	MSPRD0103AJFJ	J	Cassette Flap Spring	AB
601-10	XEBSD20P06000	J	Screw	AA
601-12	HDECQ1993AJZZ	J	LED Cover	AF

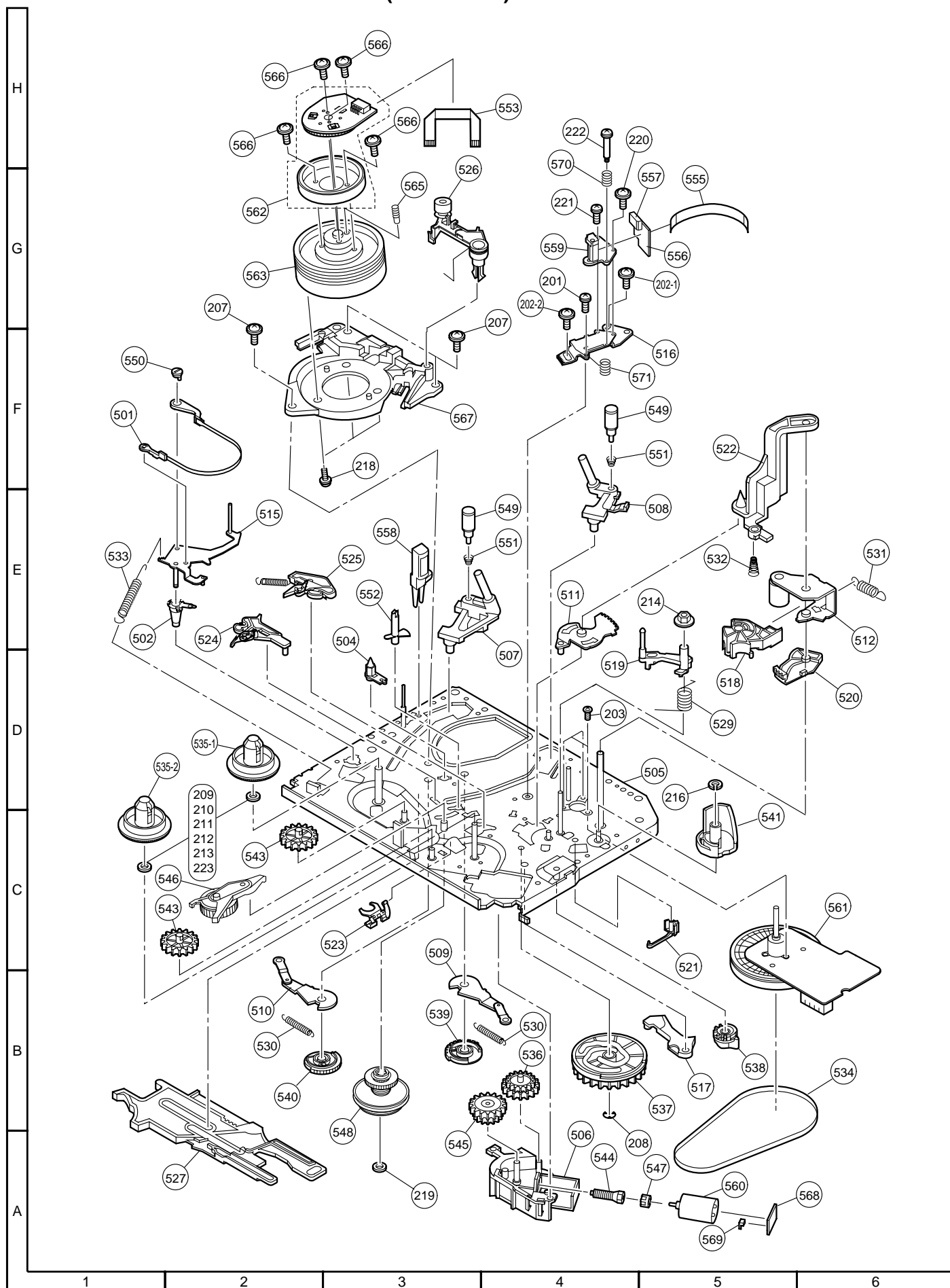
DV-NC60H

601	CPNLC2980TEV1	U	Front Panel Ass'y	AX
601-1	HiNDP2180AJSA	U	VCR Indicator	AD
601-2	HiNDP2183AJSA	U	DVD Indicator	AD
601-3	HDECQ2434AJZZ	U	DVD/VCR Decoration	AG
601-4	HDECQ2430AJSA	U	Window Decoration	AG
601-5	JBTN-3149AJSA	U	VCR Mode Button	AC
601-6	JBTN-3150AJSA	U	Channel Rec Button	AC
601-7	JBTN-3151AJSA	U	DVD Mode Button	AC
601-8	HDECQ2432AJSA	U	Cassette Flap Dec.	AG
601-9	MSPRD0103AJFJ	J	Cassette Flap Spring	AB
601-10	HDECQ1993AJZZ	J	LED Cover	AF

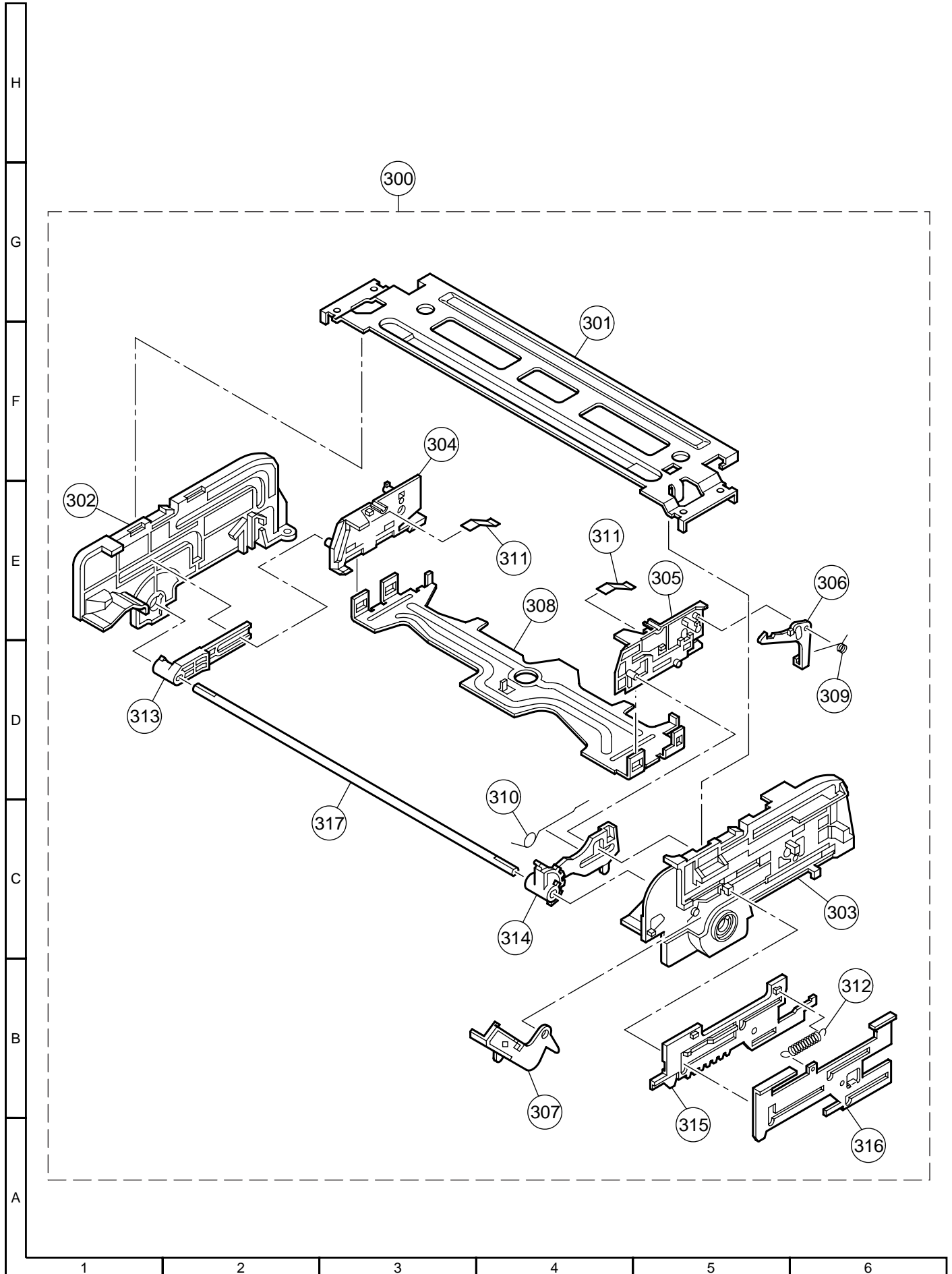
MECHANISM EXPLODED VIEW (DVD PART)



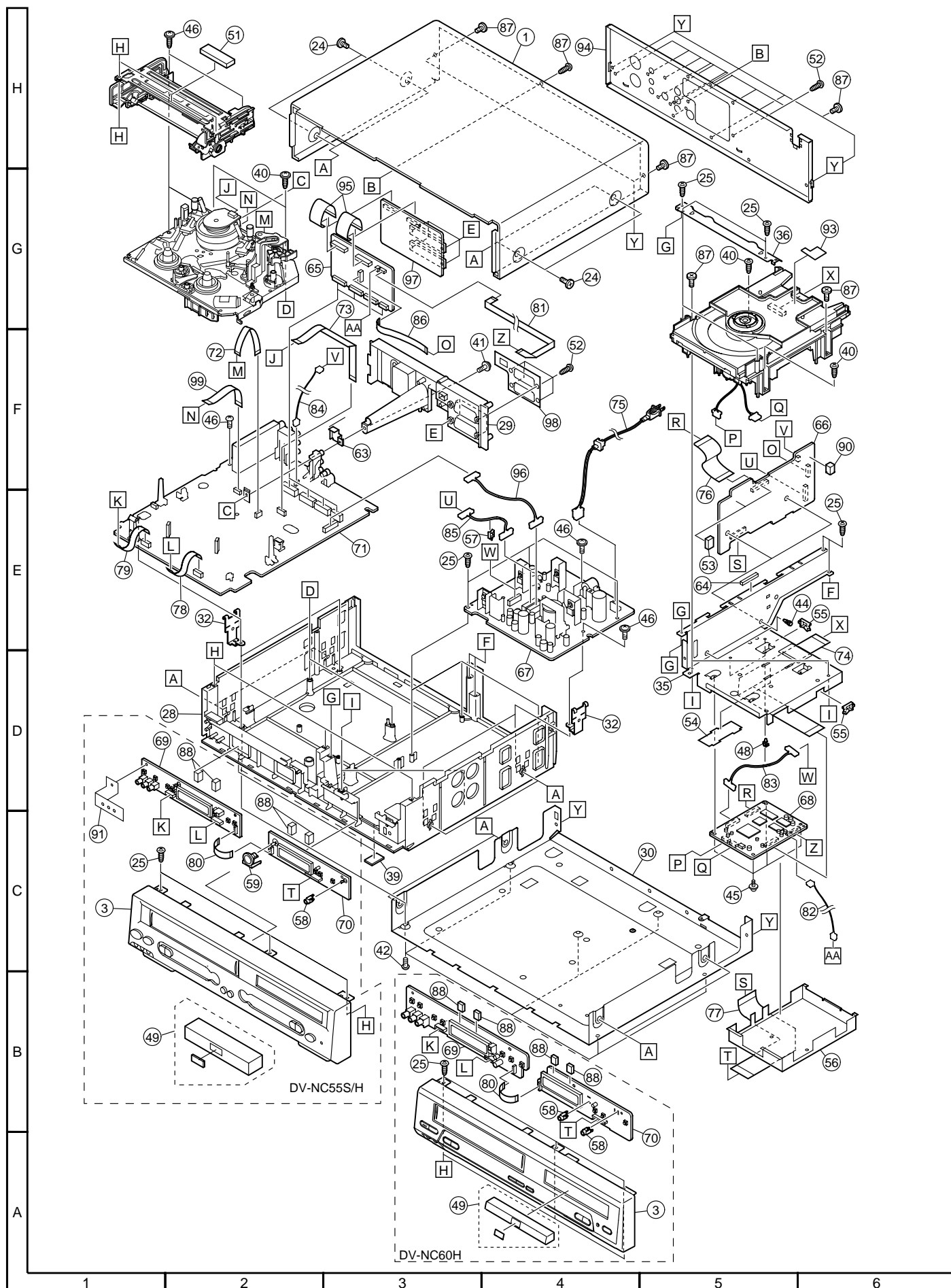
MECHANISM EXPLODED VIEW (VCR PART)



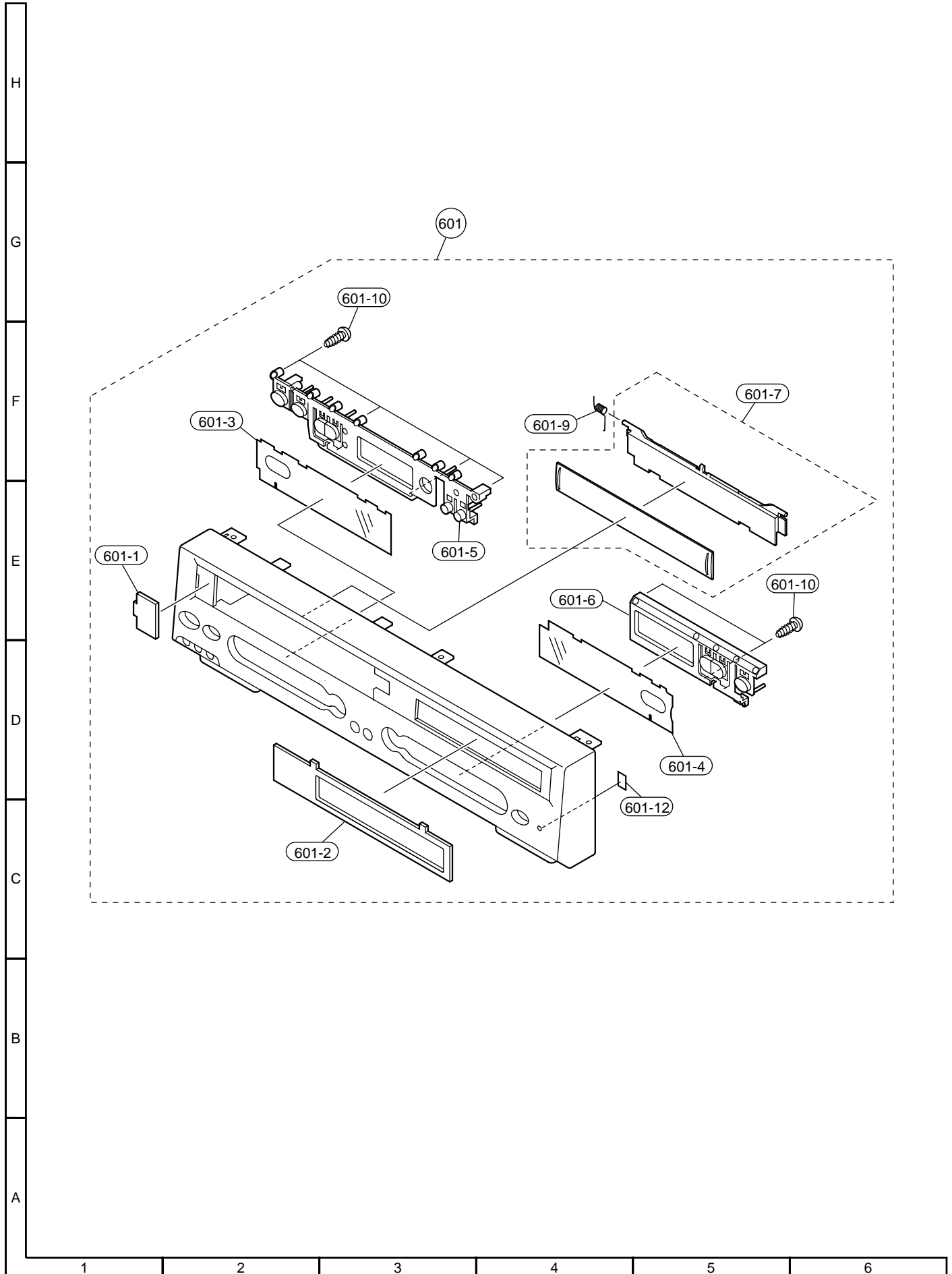
CASSETTE HOUSING CONTROL EXPLODED VIEW



CABINET EXPLODED VIEW



FRONT PANEL EXPLODED VIEW(DV-NC55S/H)



FRONT PANEL EXPLODED VIEW(DV-NC60H)

